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Robert Gibbons.

May 11<sup>th</sup> 1845.

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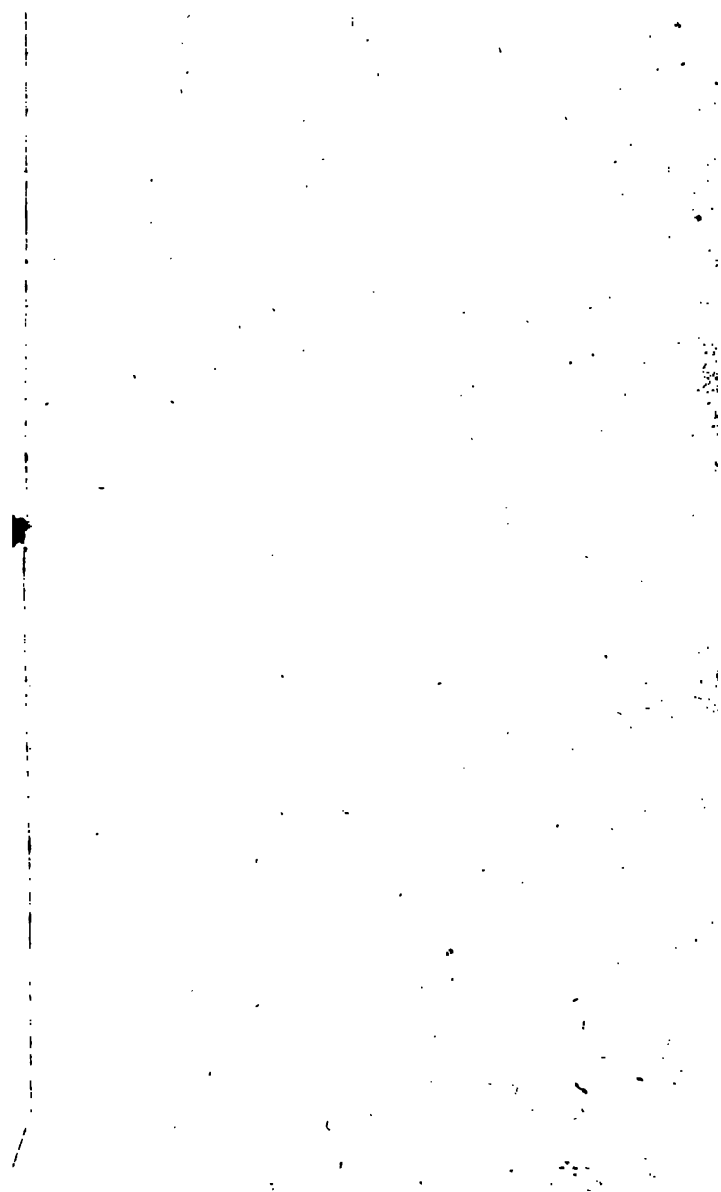
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# A DEDICATION OF THE FINANCE

BY THE AUTHOR OF THE

DEDICATION

THE DEDICATION OF THE FINANCE  
 OF THE FINANCE OF THE FINANCE

THE DEDICATION OF THE FINANCE  
 OF THE FINANCE OF THE FINANCE



THE DEDICATION OF THE FINANCE  
 OF THE FINANCE OF THE FINANCE

A  
DEMONSTRATION  
Of the  
EXISTENCE,  
WISDOM and OMNIPOTENCE  
OF  
G O D,

Drawn from the Knowledge of NATURE,  
particularly of MAN, and fitted to  
the meanest Capacity.

BY

The Archbishop of CAMBRAY, Author  
of TELEMACUS; and translated from  
the *French*, by the same Hand that *En-  
glisb'd* that excellent Piece.



L O N D O N

Printed for W. TAYLOR at the Ship, and J. BAKER  
at the Black Boy in Pater-Noster-Row. 1713.

TO THE GRACE  
DEMONSTRATION

# EXISTENCE

Witnessed by the

Universal

GOD

Drawn from the Knowledge of Nature  
particularly of the mind and spirit  
the human capacity

The Authorship of the human mind  
of the human mind, and treated from  
the point of view of the human mind  
the human mind, the human mind



Printed by W. T. Y. at the Black and White Press



TO HIS GRACE,

JOHN

Lord Archbishop of YORK;  
Lord Primate of ENGLAND;  
And Lord ALMONER to  
Her MAJESTY.

*May it please Your GRACE,*

IF any Thing could add  
Weight to the Archbishop  
of Cambray's Productions,  
the Prefixing Your GRACE'S  
Name to the following Trea-  
tise, would certainly be the  
A 2 greatest

## DEDICATION.

greatest Advantage I could give it in an *English* Dress. But the excellent Author of *TELEMACHUS* needs no foreign Recommendation: And whatever native Beauties his inimitable Stile may lose in Translation, yet his sublime Thoughts are still sufficient to support his great Name. However, MY LORD, as the Subject-Matter of these Sheets seems to have a natural Right to Your GRACE's Patronage. So, I dare promise my self, the Archbishop of CAMBRAY will be glad of this Opportunity of conversing with the Archbi  
shop



# DEDICATION.

shop of YORK. Nor can I doubt but Your GRACE will give a kind Entertainment to this illustrious Foreigner; since there appears to be so great a Conformity between your Persons and Characters: Both equally distinguish'd by your high Stations in the CHURCH, and yet more by your useful Learning; flowing and easy Eloquence; extensive Charity; affable Temper; Sanctity of Manners; and (what most becomes a true FATHER of the CHURCH) eminent Zeal for the Fundamental Truths of RELIGION.

## DEDICATION.

I might carry the Parallel further, since there is some Similitude in Both Your GRACES suffering a Kind of Eclipse, from the Severity of a Prevailing Party : But in this the Advantage must be allow'd to be on the Side of the PROTESTANT Prelate, as well in the Cause, as in other Respects and Circumstances. The Archbishop of *Cambray* is still, as to the World, in a Kind of Shade : Whereas Your GRACE's Merit and Virtues lay not long under a Cloud : But breaking forth again, and shining with fresh Lustre, at the  
REVOLUTION,

## DEDICATION.

REVOLUTION, Your GRACE was placed in the Metropolitan See of YORK, to be, as it were, the *North-Star* of the Church of *England*. May the HAPPY EPOCH of Your GRACE's Exaltation never be forgotten, by any who wish well either to Church or State! And may Your GRACE live many, many Years the Soundest Spiritual Director to the most PIOUS and BEST of QUEENS; both to secure the CHURCH against its declared Enemies, and to discountenance its no less dangerous Foes, Ecclesiasticks and La-  
icks

# DEDICATION.

icks of Impious, *Antichristian*  
Principles, and Loose Morals.  
I am with the profoundest Re-  
spect,

*May it please Your GRACE,*

*My Lord,*

*Your GRACE's*

*Most Humble and most*

*Obedient, Faithful Servant,*

**A. BOYER.**

THE  
FRENCH EDITOR'S  
*Advertisement.*

**N**OTHING is more shameful for us Christians, or more exposes our Corruption, than the Necessity, Pious and Zealous Men lie under to write in Vindication of the Existence of GOD. 'Tis true, Reason is not yet depraved to such a Degree, in any Man, as absolutely to deny its Author, and be altogether ignorant of a Truth, which He has taken Care to imprint in every Part of his great Work. To know that we exist, is almost the same with knowing that GOD exists. The Idea of our selves is so perfectly united with that of GOD, that we cannot unfold the first ever so little, without being irradiated by the Brightness the second casts forth. W

## Advertisement.

*cannot escape its Light, and tho' there have been HYPOCRITES of ATHEISM, yet there never were true Atheists. This Opinion concerning the Disingenuity of such impious Men, is supported by the open Confession, the most abandon'd and obstinate amongst them, have made, upon a Thousand Occasions, that they could not forbear Believing the Existence of a GOD, at the very Time they used all their Endeavours to root out the Belief of Him in others. Neither the small Number of those who were not so sincere; nor the mad Fury of Three or Four, who were so daring as to maintain their Impiety even to Death, can destroy the compleat Proof that results from that Confession. Men may carry Dissimulation to a great Height. The Intoxication of false Glory; together with a sort of Rage that seizes on a Soul which GOD has abandon'd, transport it beyond itself, and engage it to consummate its Crime. The Despair of a Man who, without the least Doubt, be-*  
believes

## Advertisement.

*believes a GOD; who is upon the Point of Experiencing the Rigor of his Justice, and who nevertheless, refuses to reconcile himself with him, is still a more extravagant Disposition, than the obstinate Dissimulation of the pretended Atheists; And yet the same is but too frequent.*

*'Tis therefore certain, That as there are no true Atheists, 'tis not for them that Writings asserting the Existence of GOD are calculated; and when one undertakes to prove it, 'tis not in order to undeceive Men that are convinc'd of the Contrary; but only to confirm such as stagger in their Belief. Nor is it to attack an establish'd Error, but only to obviate, and remove Doubts. But is our shame the lesser for it? Ought not we to blush as much for the Crime of the Impious among us, as we should for the blind Obstinacy of real Atheists? And as the Weakness of a Mind, from which the clearest Truth should be entirely hid, would be a Scandal to humane Nature: is the Perverseness of a Heart, that en-*  
deav

## Advertisement.

*deavours to avoid seeing the clearest Truth, that glories in being ignorant of it, and in opposing it, a less Dishonour to Mankind? What Abhorrence ought not we to entertain of those Profligate Men, who in open Rebellion against the First of all Sovereigns, and out of Ingratitude to the most liberal and bountiful of all Benefactors being inwardly persuaded of his Existence, yet strive to pluck up this Persuasion from their Minds; endeavour to call it in Question; continually labour to raise Clouds to obscure that pure Light, which 'tis not in their Power to extinguish; Exhaust their Brain to find out New Systems that may, at least, shake the Belief of others, and augment the Number of the Unbelievers: Which is the Miserable and only Resource they have left, to deaden the Stings of their Consciences, and to give, if possible, Incredulity an Air of Probability, by the Imaginary Multitude of the Incredulous? But how vain are their Efforts! All Truths are so closely twisted with that*  
First



## Advertisement.

*First Truth, that every one of them evidences This. The Mind can contemplate Nothing but what offers GOD to its View. Let the Metaphysician lose himself in the Maze of abstruse Subtleties, and follow Paths where few Men can follow him: Yet still he will find GOD at the End of his Inquiries. Let the Mathematician be wholly taken up with Bodies, and their sensible Dimensions: Yet even in these he discovers a GOD, tho' He be a Spirit. Let a Lover of History load his Memory with various Events: Yet he cannot over-look the Wisdom, Justice, and Goodness of GOD, the Over ruler of Events; and the History of Religion, in which all Things are made to center by a supreme Intelligence, becomes to him a Demonstration of the Existence of that very Intelligence. Let a Traveller wander through several Countries: And he finds that GOD is known every where, at least confusedly; which cannot but persuade him, That none but Brutes can be ignorant of Him.*

But

## Advertisement.

*But of all Proofs, the most evident is that which is drawn from the Knowledge of the Universe, and of Man, in Particular. We learn from St. Paul, and the Wise-Man, or rather the Holy Ghost, whose Instruments they were, teaches us, that this Demonstration has convinced Philosophers, and will convince every attentive Man. This Proof is display'd in so many Places throughout the Psalms, and the Prophet King is so Sublime, and so moving, when he dwels upon it, that 'tis manifest he was sensibly affected with it. The Holy Fathers knew so well its Cogency, that they omitted nothing to set it in its true Light, being justly confident, that it was sufficient to destroy Impiety. Lactancius in his Book of the Work of God; St. Athanasius in his Treatise against the Gentiles; St. Gregory Nazianzenus in his 34th Oration; St. Basil and St. Gregory of Nyssa in their Expositions of the first Chapter of Genesis, have muster'd all their Eloquence to render this Demonstration sensible*

## Advertisement.

*sible to every Body. Grenada enlarges more upon it than any of those Fathers, in his Catechism; descending into the minutest Details, in order to make that Proof familiar.*

*The Author of the following Treatise has, after so many great Men, made it his Business to dive to the very Bottom of it; to support it by the Principles of the soundest Philosophy, and, at the same Time, to adapt it to the meanest Capacity. Our Age affords but few Men capable of Executing so great a Design: But He who form'd it, has executed it perfectly well. It required a Sublime Genius to penetrate into all the secret Springs of Nature, and a vast Imagination to paint its Beauties. It required an easy Genius, and a flowing, soft, insinuating Eloquence to make those Beauties sensible; to bring down to the Level of the People, what's most elevated in Philosophy; and to render the Heights of GOD accessible to every Body. It required a resolute, and subtle Genius to obviate and defeat the*

## Advertisement.

*the Cavils of the Impious: All which great Qualities shine in this Work; and discover its Author, whom his Stile alone would have sufficiently discover'd.*

*'Tis Pity the Publick is enrich'd only, by what is got from him by Stealth. If he would have been pleased to revise this Work, he might, perhaps, have perceiv'd some Defects, which, I dare say, no Body else will perceive in it.*

*Upon the whole Matter, this Treatise is certainly the Best that's extant of the Kind: And if the Author's refin'd Taste should find in it something that might be improved, I doubt whether his Delicacy would not be excessive; and whether, on this Occasion, his Modesty should not get the better of his excellent Taste.*



A  
DEMONSTRATION  
OF THE  
EXISTENCE  
OF  
G O D.

---

SECT. I.

*Metaphysical Proofs of the Existence of God,  
are not within every Body's Reach.*



least Cast

Cannot open my Eyes,  
without Admiring the  
Art that shines through-  
out all Nature: The  
\* suffices to make me  
B perceive

---

\* Before we proceed it is necessary to acquaint the Reader, that in this excellent Piece the Author often makes use of, *Coup d' Oeil*, an Expression now much in Vogue in *French*, and which in *English* signifies a Cast of the Eye, a Glance, a Look, or also a Prospect, a Vista, in short whatever a Man sees at once by casting his Eyes one way or other.

## The EXISTENCE

perceive the Hand that makes every Thing.

Men accusom'd to meditate upon Metaphysical Truths, and to trace up Things to their first Principles, may know the DEITY by its Idea : And I own that's a sure Way to arrive at the Source of all Truth. But the more direct and short that Way is, the more difficult and unpassable it is for the Generality of Mankind, who depend on their Senses and Imagination.

An *Ideal* Demonstration is so simple, that through its very Simplicity it escapes those Minds that are incapable of Operations purely intellectual. In short, the more perfect is the Way to find the FIRST BEING, the Fewer Men there are that are capable to follow it.

### S E C T. II.

*Moral Proofs of the Existence of GOD  
are fitted to every Man's Capacity.*

**B**UT there is a less perfect Way, Level to the meanest Capacity. Men the least exercised in Reasoning,

ning, and the most tenacious of the Prejudices of the Senses, may yet with one Look discover Him who has drawn Himself in all his Works. The Wisdom and Power he has stamp't upon every Thing he has made, are seen, as it were in a Glass, by those that cannot contemplate Him in his own Idea. This is a Sensible and Popular Philosophy, of which any Man, free from Passion and Prejudice, is capable. *Humana autem anima rationalis est, qua mortalibus Vinculis Peccati pœna tenebatur, ad hoc diminutionis redacta ut per Conjecturas rerum Visibilium ad intelligenda invisibilia niteretur* \* that is, *The Hu-* <sup>\* Aug. lib. 3 de Lib. Arb.</sup> *mane Soul is still rational, but in such a manner, that being by the Punishment of Sin detain'd in the Bonds of Death, it is so far reduc'd, that it can only endeavour to arrive at the Knowledge of Things invisible, through the visible.*

## SECT. III.

*Why so few Persons are attentive to the Proofs Nature affords of the Existence of GOD.*

**I**F a great Number of Men, of subtle and penetrating Wit, have not discover'd GOD with one Cast of the Eye upon Nature, it is not matter of Wonder. For either the Passions they have been toss'd by, have still rendred them incapable of any fix'd Reflection ; or the false Prejudices that result from Passions, have, like a thick Cloud, interpos'd between their Eyes, and that noble Spectacle. A Man deeply concern'd in an Affair of great importance, that should take up all the Attention of his Mind, might pass several Days in a Room, treating about his Concerns, without taking Notice of the Proportions of the Chamber, the Ornaments of the Chimney, and the Pictures about him : All which Objects would continually be before his Eyes, and yet none of them make

*\* Ipsius vero Mundi qui omnia complexu suo coerces & continet non artificiosè solum, sed plane Artifex ab eodem Zenone dicitur, consultrix & provida Utilitatis, opportunumque omnium.*

Cic. lib. 2. de Nat. Deor.



make any Impression upon him. In this manner 'tis that Men spend their Lives: Every thing offers GOD to their Sight, and yet they see it no where. *He was in the World, and the World was made by him, and nevertheless the World did not know him: \* In \* John ca. Mundo erat, et mundus per ipsum factus est, et mundus eum non cognovit.* 1. v. 10. They pass away their Lives without perceiving that sensible Representation of the DEITY. Such is the Fascination of worldly Trifles that obscures their Eyes! *Fascinatio Nugacitatis obscurat Bona.* Nay, oftentimes they will not so much as open them, but rather affect to keep 'em shut, lest they should find Him they don't look for. In short, what ought to help most to open their Eyes, serves only to close them faster; I mean the constant Duration and Regularity of the Motions which the Supreme Wisdom has put in the Universe. St. *Austin* tells us those great Wonders have been † debased by being constantly renew'd: And *Tully* speaks exactly in the same Manner. By † seeing every day the same things, † the mind grows familiar with them

† *Affiduitate viderunt.*

## THE EXISTENCE

‘ as well as the Eyes. It neither ad-  
 ‘ mires, nor inquires into the Causes  
 ‘ of Effects that are ever seen to hap-  
 ‘ pen in the same manner: As if ’twere  
 ‘ the Novelty, and not the Impor-  
 ‘ tance of the Thing it self, that should  
 \* Cic. lib. 2. de Nat. Deor. ‘ excite us to such an inquiry: \* *Sed*  
*Affiduitate quotidiana et consuetudine O-*  
*culorum assuescunt animi, neque admiran-*  
*tur neque requirunt rationes earum re-*  
*rum, quas semper vident, perinde quasi*  
*novitas nos magis quam magnitudo rerum*  
*debeat ad exquirandas causas excitare.*

## SECT. IV.

*All Nature shews the Existence of its  
 Maker.*

**B**UT, after all, whole Nature  
 shews the infinite Art of its  
 Maker, When I speak of an Art,  
 I mean a Collection of proper Means  
 chosen on purpose, to arrive at a cer-  
 tain End: Or, if you please, ’tis an  
 Order, a Method, an Industry, or a  
 Set design. Chance, on the contra-  
 ry, is a blind and necessary Cause,  
 which neither sets in Order, nor chu-  
 ses any thing, and which has neither  
 Will,

Will, nor Understanding. Now, I maintain that the Universe bears the Character and Stamp of a Cause infinitely Powerful and Industrious; And, at the same time, that Chance, that is, the blind and fortuitous Concurrence of Causes necessary and void of Reason, cannot have form'd this Universe. To this Purpose 'tis not amiss to call to mind the celebrated Comparisons of the Ancients.

*\* In quibus nulla semeritas, sed ordo apparet, & arvisquedam Similitudo. Cic.de Nat. Deor. lib. 2.*

---

SECT. V.

*Noble Comparisons proving that Nature shews the Existence of its Maker.*

*First Comparison, drawn from HOMER'S ILIAD.*

WHO will believe that so perfect a Poem as *Homer's Iliad*, was not the Product of the Genius of a great Poet, and that the Letters of the Alphabet being confusedly jumbled and mix'd, were by Chance, as it were by the Cast of a Pair of Dice, brought together in such an Order as is necessary to describe, in Verses full of Harmony and Variety, so many great Events;

vents; to place, and connect them so well together; to paint every Object with all its most graceful, most noble, and most affecting Attendants; in short, to make every Person speak according to his Character, in so natural and so forcible a manner? Let People argue, and subtilize upon the matter as much as they please, yet they never will persuade a Man of Sense, that the *Iliad* was the mere Result of Chance. Cicero \* said the same in relation to Ennius's Annals; adding, that Chance could never make one single Verse, much less a whole Poem. How then can a Man of sense be induc'd to believe, with Respect to the Universe, a Work, beyond Contradiction, more wonderful than the *Iliad*, what his Reason will never suffer him to believe in relation to that Poem? Let's attend another Comparison, which we owe to St. Gregory Nazianzenus,

\* Cic. de  
Nat. Deor.  
lib. 2.

## S E C T. VI.

*Second Comparison drawn from the*  
SOUND of INSTRUMENTS.

**I**F we heard in a Room, from behind a Curtain, a soft and harmonious Instrument, should we believe that Chance, without the Help of any humane Hand, could have form'd such an Instrument? Should we say that the strings of a Violin, for instance, had, of their own accord, ranged, and extended themselves on a wooden Frame, whose several Parts had glued themselves together, to form a Cavity with regular Apertures? Should we maintain that the Bow form'd without Art, should be push'd by the Wind, to touch every string so variously, and with such nice Justness? What rational Man could seriously entertain a Doubt, whether a humane Hand touch'd such an Instrument with so much Harmony? Would he not cry out, 'tis a Masterly Hand that plays upon it? Let us proceed to inculcate the same Truth.

S E C T.

## SECT. VII.

*Third Comparison, drawn from a STATUE.*

**I**F a Man should find in a desert Island, a fine Statue of Marble, he would undoubtredly immediately say, sure, there have been Men here formerly ; I perceive the Workmanship of a Skilful Statuary ; I admire with what Niceness he has proportion'd all the Limbs of this Body, in Order to give them so much Beauty, Gracefulness, Majesty, Life, Tenderness, Motion and Action !

What would such a Man answer, if any Body should tell him : *That's your Mistake, a Statuary never carv'd that Figure. 'Tis made, I confess, with an excellent Gusto, and according to the Rules of Perfection ; But yet 'tis Chance alone made it. Among so many Pieces of Marble, there was one that form'd it self, of its own accord, in this manner ; the Rains and Winds have loosen'd it from the Mountains ; a violent Storm has thrown it plum upright on this Pedestal, which had prepared it self to support it in this Place.*

*'Tis*

*'Tis a perfect Apollo like that of Belvedere; a Venus that equals that of the Medicis; an Hercules like that of Farnese. You would think, 'tis true, that this Figure walks, lives, thinks, and is just going to speak: But, however, it is not, in the least, beholden to Art; and 'tis only a blind Stroke of Chance, that has thus so well finish'd and placed it.*

---

## S E C T. VIII.

*Fourth Comparison, drawn from a  
PICTURE.*

**I**F a Man had before his Eyes a fine Picture, representing, for Example, the Passage of the Red Sea, with *Moses*, at whose Voice the Waters divide themselves, and rise like Two Walls, to let the *Israelites* pass dry-foot through the Deep: He would see, on the one side, that innumerable Multitude of People, full of Confidence and Joy lifting up their Hands to Heaven; and perceive on the other side King *Pharao* with the *Egyptians* frightened and confounded at the sight of the  
Waves

Waves that join again to swallow them up. Now, in good Earnest, who would be so bold as to affirm, That a Chamber-Maid having by Chance dawb'd that Piece of Cloth, the Colours had, of their own accord, ranged themselves in order to produce that lively Colouring; those various Attitudes; those Looks so well expressing different Passions; that elegant Disposition of so many Figures, without Confusion; that decent Plaiting of Draperies; that Management of Lights; that Degradation of Colours; that exact Perspective: In short, all that the Noblest Genius of a Painter can invent? If there were no more in the Case than a little Foam at the Mouth of a Horse, I own, as the Story goes, and which I readily allow without Examining into it, that a Stroke of a Pencil thrown in a Pet by a Painter, might once, in many Ages, happen to express it well. But, at least, the Painter must beforehand have, with Design, chosen the most proper Colours to represent that Foam, in order to prepare them at the End of his Pencil,



of G O D.

cil: And therefore 'twere only a little Chance that had finish'd what Art had begun. Besides, this Work of *Art* and *Chance* together, being only a little Foam, a confused Object, and so most proper to credit a Stroke of Chance; an Object without Form, that requires only a little whitish Colour dropt from a Pencil, without any exact Figure, or Correction of Design: What Comparison is there between that Foam with a whole Design of a large continued History, in which the most fertile Fancy, and the boldest Genius, supported by the perfect Knowledge of Rules, are scarce sufficient to perform what makes an excellent Picture? I cannot prevail with my self to leave these Instances, without desiring the Reader to observe, That the most rational Men are naturally extream loath to think, that Beasts have no manner of Understanding, and are mere Machines. Now whence proceeds such an Invincible Averseness to that Opinion in so many Men of Sense? 'Tis because they suppose, with Reason, that Motions so exact, and according

ding to the Rules of perfect Mechanism, cannot be made without some Industry; and that artless Matter alone, cannot perform what argues so much Knowledge. Hence it appears, That sound Reason naturally concludes, that Matter alone cannot, either by the Simple Laws of Motion, or by the Capricious Strokes of Chance, make even Animals that are mere Machines. Those Philosophers themselves who will not allow Beasts to have any Reasoning Faculty, cannot avoid acknowledging, that what they suppose to be Blind and Artless in these Machines, is yet full of Wisdom and Art in the First Mover, who made their Springs and regulated their Movements. Thus the most opposite Philosophers perfectly agree in Acknowledging, that Matter and Chance cannot, without the Help of Art, produce all we observe in Animals.

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#### SECT. IX.

##### *A Particular Examination of NATURE.*

**A**FTER these Comparisons, about which I only desire the Reader

der to consult himself, without any Argumentation, I think 'tis high Time to enter into a Detail of Nature. I do not pretend to penetrate through the Whole: Who is able to do it? Neither do I pretend to enter into any Physical Discussion. Such way of Reasoning requires a certain deep Knowledge, which abundance of Men of Wit and Sense never acquir'd; and therefore I will offer nothing to them but the simple Prospect of the Face of Nature. I will entertain them with nothing but what every Body knows, and which requires only a little calm and serious Attention.

---

## SECT. X

### *Of the* GENERAL STRUCTURE *of the* UNIVERSE.

**L**ET us, in the first Place, stop at the great Object that first strikes our Sight, I mean the *General Structure* of the *Universe*. Let us cast our Eyes on this Earth that bears us. Let us look on that vast Arch  
of

*Quanta sit admirabilis celestium rerum, atque terrestrium*

of the Skies that covers us; those immense Regions of Air, and Depths of Water that surround us; and those bright Stars that light us. A Man who lives without Reflecting, thinks only on the Parts of Matter that are near him, or have any Relation to his Wants. He only looks upon the Earth, as on the Floor of his Chamber; and on the Sun that lights him in the Day-time, as on the Candle that lights him in the Night. His Thoughts are confin'd within the Place he inhabits. On the contrary, a Man who is used to contemplate and reflect carries his Looks further, and curiously considers the almost infinite Abysses that surround him on all sides. A large Kingdom appears then to him but a little Corner of the Earth; the Earth it self is no more to his Eyes than a Point in the Mass of the Universe; and he admires to see himself placed in it, without knowing which way he came there.

SECT.

## S E C T. XI.

*Of the EARTH.*

**W**H O is it that hung and  
 pois'd this motionless Globe  
 of the Earth? Who laid its  
 Foundation? Nothing seems more  
 Vile and Contemptible; for the  
 meanest Wretches tread it under  
 Foot; but yet 'tis in order to pos-  
 sess it, that we part with the grea-  
 test Treasures. If it were harder  
 than it is, Man could not open its  
 Bosom to cultivate it; and if it  
 were less hard, it could not bear  
 them, and they would sink every  
 where, as they do in Sand, or in a  
 Bog. 'Tis from the inexhaustible  
 Bosom of the Earth, we draw what's  
 most Precious. That shapeless, vile,  
 and rude Mass assumes the most va-  
 rious Forms; and yields alone, by  
 Turns, all the Goods we can desire.  
 That dirty Soil transforms it self  
 into a Thousand fine Objects that  
 charm the Eye. In the compass  
 of One Year it turns into Branches,  
 Twigs, Buds, Leaves, Blossoms,  
 C Fruits,

## The EXISTENCE

Fruits, and Seeds, in order, by these various Shapes, to multiply its Liberalities to Mankind. Nothing exhausts the Earth: The more we tear her Bowels, the more she's Liberal. After so many Ages, during which she has produced every Thing, she is not yet worn out. She feels no Decay from Old Age; and her Entrails still contain the same Treasures. A Thousand Generations have pass'd away, and return'd into her Bosom: Every thing grows Old, she alone excepted: For she grows Young again every Year in the Spring. She's never wanting to Men; but foolish Men are wanting to themselves, in neglecting to cultivate Her. 'Tis through their Laziness and Extravagance they suffer Brambles and Briars to grow instead of Grapes and Corn. They contend for a Good they let perish. The Conquerors leave uncultivated the Ground for the Possession of which they have sacrificed the Lives of so many Thousand Men, and have spent their own in Hurry and Trouble. Men have before them vast Tracts of Land uninhabited and uncultivated

cultivated ; and they turn Mankind  
Topsy-turvy for one Nook of that  
neglected Ground in Dispute. The  
Earth, if well cultivated, would  
feed a Hundred Times more Men  
than now she does. Even the Un-  
evenness of Ground which at first,  
seems to be a Defect, turns either  
into Ornament or Profit. The  
Mountains arose and the Vallies de-  
scended to the Place the Lord had  
appointed for them. Those differ-  
ent Grounds have their particular  
Advantages, according to the divers  
Aspects of the Sun. In those deep  
Vallies grows fresh and tender Grafs  
to feed Cattle. Next to them opens  
a vast Champion cover'd with a  
rich Harvest. Here, Hills rise like an  
Amphitheater, and are crown'd with  
Vineyards and Fruit-Trees. There  
high Mountains carry aloft their  
frozen Brows to the very Clouds,  
and the Torrents that run down  
from them become the Springs of  
Rivers. The Rocks that shew their  
craggy Tops, bear up the Earth of  
Mountains, just as the Bones bear  
up the Flesh in Human Bodies.  
That Variety yields at once, a ra-  
C d vishing

ishing Prospect to the Eye, and, at the same Time, supplies the divers Wants of Man. There's no Ground so barren, but has some profitable Property. Not only black and fertile Soil, but even Clay and Gravel recompence a Man's Toil.

\* *Fens.* Drain'd \* Morasses become Fruitful; Sand for the most part, only covers the Surface of the Earth; And when the Husbandman has the Patience to digg deeper, he finds a new Ground that grows fertile as fast as it is turn'd, and expos'd to the Rays of the Sun.

Xenophon's  
Country  
Oeconomy.

There's scarce any Spot of Ground absolutely barren, if a Man do not grow Weary of Digging, and Turning it to the enlivening Sun, and if he require no more from it, than it is proper to bear, Amidst Stones and Rocks there's sometimes excellent Pasture; and their Cavities have Veins, which being penetrated by the piercing Rays of the Sun, furnish Plants with most Savoury Juices for the Feeding of Herds and Flocks. Even Sea-Coasts that seem to be the most Sterile and Wild, yield sometimes either delicious Fruits,



Fruits, or most wholesome Medicines, that are wanting in the most fertile Countries. Besides, 'tis the Effect of a wise over-ruling Providence, that no Land yields all that's useful to Human Life. For Want invites Men to Commerce, in order to supply one another's Necessities. ~~It~~ <sup>Is</sup> therefore that Want that's the natural Tie of Society between Nations: Otherwise all the People of the Earth would be reduc'd to one Sort of Food and Cloathing; and nothing would invite them to know and visit one another.

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## SECT. XII

### *Of* PLANTS.

**A**LL that the Earth produces being corrupted, returns into her Bosom, and becomes the Seed of a new Production. Thus she resumes all she has given, in order to give it again. Thus the Corruption of Plants, and the Excrements of the Animals she feeds, feed her, and improve her Fertility. Thus the

more she gives, the more she resumes; and she is never exhausted, provided they who cultivate her restore to her what she has given. Every thing comes from her Bosom; Every thing returns to it; and nothing is lost in it. Nay, all Seeds multiply there: If, for instance, you trust the Earth with some Grains of Corn, as they corrupt they germinate and spring; and that teeming Parent restores with Usury more Ears than she had receiv'd Grains. Dig into her Entrails: You'll find in them Stone and Marble for the most magnificent Buildings. But who is it that has laid up so many Treasures in her Bosom, upon Condition that they should continually produce themselves anew? Behold how many precious and useful Metals; how many Minerals design'd for the Conveniency of Man!

Admire the Plants that spring from the Earth: They yield Food for the Healthy, and Remedies for the Sick. Their species and Vertues are innumerable. They deck the Earth, yield Verdure, fragrant Flowers, and delicious Fruits. Do  
you

you see those vast Forests that seem  
 as Old as the World? Those Trees  
 sink into the Earth by their Roots,  
 as deep as their Branches shoot up  
 to the Sky. Their Roots defend  
 them against the Winds, and fetch  
 up, as it were by Subteranean Pipes,  
 all the Juices destin'd to feed the  
 Trunk. The Trunk itself is cover'd  
 with a tough Bark that shelters the  
 tender Wood from the Injuries of  
 the Air. The Branches distribute by  
 several Pipes the Sap which the  
 Roots had gather'd up in the Trunk.  
 In Summer, the Boughs protect us  
 with their Shadow, against the  
 Scorching Rays of the Sun. In Win-  
 ter, they feed the Fire that preserves  
 in us natural Heat. Nor is Burning  
 the only use Wood is fit for : It is  
 a soft, tho' solid and durable mat-  
 ter, to which the Hand of Man gives,  
 with Ease, all the Forms he pleases,  
 for the greatest Works of Archite-  
 cture and Navigation. Moreover,  
 Fruit Trees by bending their Boughs  
 towards the Earth, seem to offer  
 their Crop to Man. The Trees  
 and Plants, by letting their Fruit, or  
 Seed drop down, provide for a nu-  
 merous

## The E X I S T E N C E

merous Posterity about them. The tenderest Plant, the least of Herbs and Pulse are, in little, in a small Seed, all that's display'd in the highest Plants and largest Tree. Earth that never changes, produces all those Alterations in her Bosom.

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### S E C T. XIII.

#### *Of W A T E R.*

**L**ET us now behold what we call Water. It is a Liquid, clear and transparent Body, On the one hand it flows, slips, and runs away and on the other, it assumes all the Forms of the Bodies that surround it, having properly none of its own. If water were more rarefied, or thinner, it would be a kind of Air and so the whole Surface of the Earth would be dry and sterile. There would be none but Volatiles; no living Creature could swim; no Fish could live; nor would there be any Traffick by Navigation. What industrious and sagacious Hand has found means to thicken the Water by subtilizing the Air, and so well to di

di

distinguish those two sorts of fluid Bodies? If Water were some what more rarefied, it could no longer sustain those prodigious floating Buildings, called Ships. Bodies that have the least Ponderosity would presently sink under Water. Who is it that took care to frame so just a Configuration of Parts, and so exact a Degree of Motion, as to make Water so fluid, so penetrating, so slippery, so incapable of any Consistency: And yet so strong to bear, and so impetuous to carry off and waft away the most unwieldy Bodies? It is docile; Man leads it about as a Rider does a well-manag'd Horse. He distributes it as he pleases; He raises it to the Top of steep Mountains, and makes use of its Weight to let it fall, in order to rise again, as high as it was at first. But Man who leads Waters with such absolute Command, is, in his turn, led by them. Water is one of the greatest moving Powers, that Man can employ to supply his Defects in the most necessary Arts, either through the Smalness or Weakness of his Body. But the Waters,

\* *Super  
pennas  
ventorum.*

Waters, which notwithstanding their Fluidity, are such ponderous Bodies, do nevertheless rise above our Heads, and remain a long while hanging there. Do you see those Clouds that fly, as it were, \* on the Wings of the Winds? If they should fall, on a sudden, in Watry Pillars, rapid like a Torrent, they would drown and destroy every thing where they should happen to fall, and the other Grounds would remain dry. What hand keeps them in those pendulous Reservoirs, and permits them to fall only by Drops as if they distill'd through a Gardiner's Watering-Pot? Whence comes it, that in some hot Countries, where scarce any Rain ever falls, the nightly Dews are so plentiful, that they supply the Want of Rain: And that in other Countries, such as the Banks of the *Nile* and *Ganges*, the regular Inundation of Rivers, at certain Seasons of the Year, never fails to make up what the Inhabitants are deficient in, for the Watering of the Ground? Can one imagine Measures better concerted,

to

to render all Countries Fertile and Fruitful?

Thus Water quenches, not only the Thirst of Men, but likewise of arid Lands: And he who gave us that fluid Body, has carefully distributed it: throughout the Earth, like Pipes in a Garden. The Waters fall from the Tops of Mountains where their Reservatories are placed. They gather into Rivulets in the Bottom of Valleys. Rivers run in winding Streams through vast Tracts of Land, the better to water them; And, at last, they precipitate themselves into the Sea, in order to make it the Center of Commerce for all Nations. That Ocean, which seems to be placed in the midst of Lands, to make an eternal † Separation between them, is, on the contrary, the common Rendez-vous of all the People of the Earth, who could not go, by Land, from one End of the World to

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† The illustrious Author alludes to and rectifies this Thought of *Horace, Carm. lib. 1. Ode. 3.*

*Nequicquam DEUS abscondit  
Prudens Oceano Dissociabili  
Terras, si semen imple  
Non tangenda rates transiliunt vada.*

to the other, without infinite Fatigue, tedious Journeys, and numberless Dangers. 'Tis by that trackless Road, cross the bottomless Deep, that the Old World shakes Hands with the New; and that the New supplies the Old with so many Conveniencies and Riches. The Waters, distributed with so much Art, circulate in the Earth, just as the Blood does in a Man's Body. But besides this perpetual Circulation of the Water, there is besides the Flux \* and Reflux of the Sea. Let us not inquire into the Causes of so Mysterious an Effect. What's certain is, that the Tide carries, or brings us back to certain Places, at precise Hours. Who is it that makes it withdraw, and then come back with so much Regularity? A little more or less Motion in that fluid Mass would disorder all Nature: For a little more Motion in a Tide or Flood would drown whole Kingdoms. Who is it that knew how to take such exact Measures in immense Bodies? Who is it that knew so well how to keep a just Medium

\* *Vulgarly,  
Flowing &  
Ebbing.*



Medium between too much and too little? What Hand has set to the Sea the unmoveable Boundary it must respect through the Series of all Ages, by telling it : There, thy proud Waves shall come and break? But these Waters so fluid, become, on a sudden, during the Winter, as hard as Rocks. The Summits of high Mountains, have, even at all Times, Ice and Snow, which are the Springs of Rivers, and soaking Pasture-Grounds render them more fertile. Here Waters are sweet to quench the Thirst of Man: There they are briny, and yield a Salt that seasons our Meat, and makes it incorruptible. In fine, if I lift up my Eyes, I perceive in the Clouds that fly above us, a sort of hanging Seas, that serve to temper the Air, break the fiery Rays of the Sun, and water the Earth when it is too dry. What Hand was able to hang over our Heads those great Reservatories of Waters? What Hand takes Care never to let them fall, but in moderate Showers?

SECT.

## SECT. XIV.

*Of the AIR.*

**A**FTER having consider'd the Waters, let us now contemplate another Mass yet of far greater Extent. Do you see what is call'd Air? 'Tis a Body so pure, so subtle, and so transparent, that the Rays of the Stars, seated at a distance almost infinite from us, pierce quite through it, without difficulty, and in an instant, to light our Eyes. Had this fluid Body been a little less subtle, it would either have intercepted the Day from us, or at most would have left us but a dusky and confused Light, just as when the Air is fill'd with thick Fogs. We live plung'd in Abysses of Air, as Fishes do in Abysses of Water. As the Water, if it were subtiliz'd, would become a kind of Air, which would occasion the Death of Fishes; so the Air would deprive us of Breath if it should become more humid and thicker. In such a Case we should drown in the Waves of that thicken'd Air,  
just

just as a terrestrial Animal drowns in the Sea. Who is it that has so nicely purified that Air we breath? If it were thicker, it would stifle us; and if it were too subtle, it would want that Softness which continually feeds the Vitals of Man. We should be sensible every where of what we experience on the Top of the highest Mountains, where the Air is so thin that it yields no sufficient Moisture and Nourishment for the Lungs. But what invisible Power raises, and lays so suddenly the Storms of that great fluid Body, of which those of the Sea are only Consequences? From what Treasury come forth the Winds that purify the Air, cool scorching Heats, temper the Sharpness of Winter, and, in an Instant, change the whole Face of Heaven? On the Wings of those Winds, the Clouds fly from one End of the Horizon to the other. 'Tis known that certain  
 \* Winds blow in certain Seas, at  
 some stated Seasons. They conti-  
 nue a fix'd Time, and others suc-  
 ceed them, as it were on purpose,  
 to render Navigation both commo-  
 dious

\* Call'd by  
 Sea-Men  
 Trade-  
 Winds.

dious and regular: So that if Men are but as patient, and as punctual as the Winds, they may, with Ease, perform the longest Voyages.

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## S E C T. XV.

*Of FIRE.*

**D**O you see that Fire that seems kindled in the Stars, and spreads its Light on all sides? Do you see that Flame which certain Mountains vomit up, and which the Earth feeds with Sulphur within its Entrails? That same Fire peaceably lurks in the Veins of Flints; and expects to break out, till the Collision of another Body excites it to shock Cities and Mountains. Man has found the Way to kindle it; and apply it to all his Uses, both to bend the hardest Metals, and to feed with Wood, even in the most frozen Climes, a Flame that serves him instead of the Sun, when the Sun removes from him. That subtle Flame glides and penetrates into all Seeds. It is, as it were, the Soul of all living Things; it consumes all that's  
Impure

Impure, and renews what it has purified. Fire lends its Force and Activity to weak Men. It blows up, on a sudden, Buildings and Rocks. But have we a mind to confine it to a more moderate Use? It warms Man, and makes all sorts of Food fit for his Eating. The Ancients, in Admiration of Fire, believed it to be a Celestial Gift, which Man had Stolen \* from the Gods.

SECT. XVI.

Of HEAVEN.

**T**IS Time to lift up our Eyes to Heaven. What Power has built over our Heads so vast and so magnificent an Arch? What a stupendous Variety of admirable Objects is here? 'Tis, no doubt, to present us with a noble Spectacle that an Omnipotent Hand has set before our Eyes so great and so bright Objects. 'Tis in order to

D                      raise

\* *Audax Iapeti genus  
Ignem fraude malâ gentibus intulit.  
Post ignem asseretâ domo  
Subduâum, &c. Horat. Carm. Lib. 1. Ode 3.*

† Lib. 2.  
De Nat.  
Deor.

raise our Admiration of Heaven, says Tully, † That GOD made Man unlike the rest of \* Animals. He stands upright, and lifts up his Head, that he may be employ'd about the Things that were above him. Sometimes we see a dusky Azure Sky, where the purest Fires twinkle. Sometimes we behold, in a temperate Heaven, the softest Colours, mix'd with such Variety, as 'tis not in the Power of Painting to imitate. Sometimes we see Clouds of all Shapes and Figures, and of all the brightest Colours, which every Moment, shift that beautiful Decoration, by the finest Accidents and various Effects of Light. What does the regular Succession of Day and Night, denote? For so many Ages as are past, the Sun never fail'd serving Men, who cannot live without it. Many Thousand Years are elaps'd,

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\* *Pronaque cum spectent Animalia cætera Terram.  
Os homini Sublime dedit; Cælumque videre  
Fussit, & erectos ad Sidera tollere vultus.*

Ovid. Metam. Lib. 1.

This Thought of Ovid was imitated by the Poet Silius, who says,

*Nonne videt hominum ut celsos ad Sidera Vultus  
Sustulerit Deus, & Sublimia finxerit Ora.*

elaps'd, and the Dawn never once miss'd proclaiming the Approach of the Day. It always begins precisely, at a certain Moment and Place. The Sun, says the Holy Writ, knows where it shall set every Day. By that means it lights, by Turns, the Two Hemispheres, or Sides of the Earth, and visits all those for whom its Beams are design'd. The Day is the Time for Society, and Labour; the Night wrapping up the Earth with its Shadow, ends, in its Turn, all manner of Fatigue, and alleviates the Toil of the Day. It suspends, and quiets all; and spreads Silence and Sleep every where. By refreshing the Bodies, it renews the Spirits. Soon after, Day returns to summon again Man to Labour, and revive all Nature.

## S E C T. XVII.

*Of the S U N.*

**B**UT besides the constant Course by which the Sun forms Days and Nights, it makes us sensible of another, by which, for the Space of

Six Months, it approaches one of the Poles, and at the End of those Six Months, goes back with equal Speed, to visit the other Pole. This excellent Order makes one Sun sufficient for the whole Earth. If it were of a larger Size at the same Distance, it would set the whole Globe on Fire, and the Earth would be burnt to Ashes. And if, at the same Distance, it were lesser, the Earth would be all over frozen, and uninhabitable. Again, if, in the same Magnitude, it were nearer us, it would set us in Flames; and if more remote, we should not be able to live on the terrestrial Globe, for want of Heat. What Pair of Compasses, whose Circumference encircles both Heaven and Earth, has fix'd such just Dimensions? That Star does no less befriend that Part of the Earth from which it removes, in order to temper it, than that it approaches, to favour it with its Beams. Its kind, beneficent Aspect, fertilizes all it shines upon. This Change produces that of the Seasons, whose Variety is so agreeable. The Spring silences bleak, frosty Winds,  
brings



brings forth Blossoms and Flowers, and promises Fruits. The Summer yields rich Harvests. The Autumn bestows the Fruits promis'd by the Spring. The Winter, which is a kind of Night, wherein Man refreshes and rests himself, lays up all the Treasures of the Earth in its Center, with no other Design, but that the next Spring may display them, with all the Graces of Novelty: Thus Nature, variously attired, yields so many fine Prospects, that she never gives Man Leisure to be disgusted with what he possesses.

But how is it possible for the Course of the Sun to be so regular? It appears that Star is only a Globe of most subtle Flame: Now, what is it that keeps that Flame, so restless and so impetuous, within the exact Bounds of a perfect Globe? What Hand leads that Flame, in so strait a Way, and never suffers it to slip one side or other? That Flame is held by Nothing; and there is no Body that can either guide it, or keep it under: For it would soon consume whatever Body it should

be enclosed in. Whither is it going? Who has taught it incessant and so regularly to turn in a space where it is free and unconstrained? Does it not circulate about us, for purpose to serve us? Now if the Flame does not turn, and if, on the Contrary, 'tis our Earth that turns, I'd fain know how it comes to be so well placed in the Center of the Universe, as it were the *Focus* or the Heart of all Nature. I'd fain know also, how it comes to pass that a Globe of so subtle Matter never slips on any side, in that immense Space that surrounds it; and wherein, it seems to stand with Reason, that all fluid Bodies ought to yield to the Impetuosity of the Flame.

In fine, I'd fain know, how comes to pass, that the Globe of the Earth, which is so very hard, turns so regularly about that Planet, in a space where no solid Body keeps it fast, to regulate its Course? Let Men, with the Help of Physick contrive the most ingenious Reason to explain this *Phænomenon*: All their Arguments (supposing them to be true)

true) will become Proofs of the DEITY. The more the great Spring, that directs the Machine of the Universe is exact, simple, constant, certain, and productive of Abundance of useful Effects; the more 'tis plain, that a most potent, and most artful Hand knew how to pitch upon the Spring which is the most perfect of all.

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## S E C T. XVIII.

*Of the STARS.*

**B**UT let us once more view that immense arch'd Roof, where the Stars shine, and which covers our Heads like a Canopy. If it be a solid Vault, what Architect built it? Who is it that has fix'd so many great Luminous Bodies to certain Places of that Arch, and at certain Distances? Who is it that makes that Vault turn so regularly about us? If on the Contrary, the Skies are only immense Spaces full of fluid Bodies, like the Air that surrounds us: How comes it to pass that so many solid Bodies

float in them, without ever sinking, or ever coming nearer one another? For all Astronomical Observations that have been made, in so many Ages, not the least Disorder, or irregular Motion has yet been discover'd in the Heavens. Will a fluid Body range in such constant and regular Order, Bodies that swim circularly within its Sphere? But what does that almost innumerable Multitude of Stars mean? The Profusion with which the Hand of God has scatter'd them through his Work, shews nothing is difficult to his Power. He has cast them about the Skies, as a Magnificent Prince, either scatters Money by Hand-fulls, or studs his Cloaths with precious Stones. Let who will say, if he pleases, that the Stars are as many Worlds, like the Earth we inhabit; I grant it for one Moment: *But* *then*, how Potent and Wise must He be, who makes Worlds as numberless as the Grains of Sand that cover the Sea-shore; and who, without any Trouble, for so many Ages, governs all these wandering Worlds, as a Shepherd does a Flok of Sheep?

*Sustinendi  
Muneris  
propter im-  
becillitatem  
difficultas  
minimè ca-  
dit in Ma-  
jestatem  
Deorum  
Cic. Lib. 2.  
de Nat.  
Deor.*

If, on the contrary, they are only, as it were, lighted Torches, to shine in our Eyes in this small Globe, call'd Earth : How great is that Power, which nothing can fatigue, nothing can exhaust ! What a profuse Liberality it is, to give Man, in this little Corner of the Universe, so marvellous a Spectacle !

But among those Stars I perceive the Moon, which seems to share with the Sun the Care and Office of Lighting us. She appears, at set Times, with all the other Stars, when the Sun is oblig'd to go and carry back the Day to the other Hemisphere. Thus Night it self, notwithstanding its Darkness, has a Light, Dusky indeed, but soft, and useful. That Light is borrow'd from the Sun, tho' absent : And thus every thing is managed, with such excellent Art, in the Universe, that a Globe near the Earth, and as dark, as she of itself, serves nevertheless to send back to her by Reflection, the Rays it receives from the Sun ; And that the Sun lights, by means of the Moon, the  
People

People that cannot see him, while he must light others.

It may be said, that the Motion of the Stars is settled and regulated by unchangeable Laws. I suppose it is: But this very Supposition proves what I labour to evince. Who is it that has given to all Nature Laws at once so constant and so wholesom; Laws so very simple, that one is tempted to believe, they establish themselves of their own accord; and so productive of beneficial and useful Effects, that one cannot avoid acknowledging a Marvellous Art in them? Whence proceeds the Government of that Universal Machine, which incessantly works for us, without so much as our Thinking upon it? To whom shall we ascribe the *Choice* and Gathering of so many deep, and so well concerted Springs; and of so many Bodies, great and small, visible and invisible, which equally concur to serve us? The least Atom of this Machine, that should happen to be out of Order, would unhinge all Nature. For the Springs and Move-  
ments

ments of a Watch are not put together with so much Art and Niceness, as those of the Universe. What then must be a Design so extensive, so coherent, so excellent, so beneficial? The necessity of those Laws, instead of deterring me from inquiring into their Author, does but heighten my Curiosity, and Admiration. Certainly, it required a Hand equally artful and powerful, to put in his Work an Order equally Simple and Teeming, constant and useful. Wherefore I will not scruple to say with the Scripture, *Let every Star haste to go whither the Lord sends it; and when He speaks, let them answer with Trembling; Here we are, Ecce adsumus.*

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SECT. XX.

Of ANIMALS, BEASTS; FOWL; BIRDS, FISHES; REPTILES, and INSECTS.

**B**UT let us turn our Eyes towards Animals, which still are more worthy of Admiration than either the Skies, or Stars. Their Species are numberless. Some have but two Feet, others Four, others again

again a great many. Some walk; others crawl, or creep; others fly; others swim; others fly, walk, or swim, by Turns. The Wings of Birds, and the Fins of Fishes, are like Oars, that cut the Waves either of Air or Water, and steer the floating Body either of the Bird, or Fish, whose Structure is like that of a Ship. But the Pinions of Birds have Feathers with a Down, that swells in the Air, and which would grow unwieldy in the Water. *And*, on the contrary, the Fins of Fishes have sharp and dry Points, which cut the Water, without imbibing it, and which don't grow heavier by being wet. A sort of Fowl that swim, such as swans, keep their Wings, and most of their Feathers above Water, both lest they should wet them, and that they may serve them, as it were, for Sails. They have the Art to turn those Feathers against the Wind, and, in a manner, to tack, as Ships do when the Wind does not serve. Water Fowls, such as Ducks, have at their Feet large Skins that stretch, somewhat like Rackets, to  
keep



keep them from sinking on the oozy and miry Banks of Rivers.

Amongst the Animals, Wild Beasts, such as Lions, have their biggest Muscles about the Shoulders, Thighs, and Legs; and therefore these Animals are nimble, brisk, nervous, and ready to rush forward. Their Jaw-bones are prodigiously large, in proportion to the rest of their Bodies. They have Teeth and Claws, which serve them, as terrible Weapons, to tear in Pieces and devour other Animals. For the same Reason, Birds of Prey, such as Eagles, have a Beak and Pounces that pierce every Thing. The Muscles of their Pinions are extream large, and brawny, that their Wings may have a stronger and more rapid Motion: And so those Creatures, tho' somewhat heavy, soar aloft and towr up easily to the very Clouds, from whence they shoot, like a Thunder-bolt, on the Quarry they have in View. Other Animals have Horns. The greatest strength of some lies in their Backs and Necks; and others can only kick.

kick. Every Species, however, has both offensive and defensive Arms. Their Hunting is a kind of War, which they wage one against another, for the Necessities of Life. They have also Laws and a Government among themselves. Some, like Tortoises, carry the House wherein they were born; others build theirs, as Birds do, on the highest Branches of Trees, to preserve their Young from the Insult of unwing'd Creatures, and they even lay their Nests in the thickest Boughs to hide them from their Enemies. Another, such as the Beaver, builds in the very Bottom of a Pond, the Sanctuary: he prepares for himself, and knows how to cast up Dikes round it, to preserve himself by the neighbouring Inundation. Another, like a Mole, has so pointed and so sharp a Snout, that in one Moment, he pierces through the hardest Ground, in order to provide for himself a subterranean Retreat. The cunning Fox digs a Kennel with two Holes to go out and come in at, that he may not be either surpriz'd, or trapt by the Huntsmen.

men. The Reptiles are of another Make. They curl, wind, shrink, and stretch by the Springs of their Muscles; they creep, twist about, squeeze, and hold fast the Bodies they meet in their Way; and easily slide every where. Their Organs are almost independent one on the other; so that they still live when they are cut into Two. The long-legg'd Birds, says *Cicero*, are also long-neck'd in Proportion, that they may bring down their Bill to the Ground, and take up their Food. It is the same with the Camel; But the Elephant whose Neck through its Bigness, would be too heavy, if it were as long as that of the Camel, was furnish'd with a Trunk, which is a Con-texture of Nerves and Muscles, which he stretches, shrinks, winds and turns every way, to seize on Bodies, lift them up, or throw them off. For which Reason the *Latins* call'd that Trunk, a Hand.

Certain Animals seem to be made, on purpose, for Man. The Dog is born to caress and fawn upon him; to obey and be under Command; to give him an agreeable Image of  
Society

Society, Friendship, Fidelity, and Tenderneſs; to be true to his Truſt; Eagerly to hunt down, courſe and catch ſeveral other Creatures, to leave them afterwards to Man, without retaining any part of the Quarry. The Horſe, and ſuch other Animals, are within the Reach and Power of Man; to eaſe him of his Labour, and to take upon them a Thouſand Burdens. They are born to carry, to walk, to ſupply Man's Weakneſs, and to obey all his Motions. Oxen are endow'd with Strength and Patience, in order to draw the Plough and till the Ground. Cows yield ſtreams of Milk. Sheep have in their Fleeces a Superfluity which is not for them, and which ſtill grows and renews, as it were to invite Men to ſhear them every Year. Even Goats furniſh Man with a long Hair, for which they have no uſe, and of which he makes Stuffs to cover himſelf. The Skins of ſome Beaſts ſupply Men with the fineſt and beſt Linings, in the Countries that are moſt remote from the Sun. Thus the Author of Nature has cloathed Beaſts  
according

according to their Necessities; and their Spoils serve afterwards to cloath Men, and keep them warm in those frozen Climes. The Living Creatures that have little or no Hair have a very thick, and very hard Skin, like Scales; others have even Scales that cover one another, as Tiles on the Top of a House, and which either open or shut, as it best suits with the living Creature, either to extend itself, or shrink. These Skins and Scales serve the Necessities of Men: And thus in Nature, not only Plants, but Animals also are made for our Use. Wild Beasts themselves either grow tame, or at least, are afraid of Man. If all Countries were peopled and govern'd, as they ought to be, there would not be any where Beasts should attack Men. For no Wild Beasts would be found but in remote Forests, and they would be preserv'd in order to exercise the Courage, Strength, and Dexterity of Mankind, by a Sport that should represent War; so that there never would be any Occasion for real Wars among Nations. But observe that Living Creatures that are noxious to

E

Man

## THE EXISTENCE

to Man are the least teeming, and that the most useful, multiply most. There are, beyond Comparison, more Oxen and Sheep kill'd, than Bears or Wolves; and nevertheless the Number of Bears and Wolves is infinitely less than that of Oxen and Sheep still on Earth. Observe likewise, with *Cicero*, that the Females of every Species have a Number of Teats proportion'd to that of the Young ones they generally bring forth. The more young they bear, with the more Milk-springs, has Nature supply'd them, to suckle them.

While Sheep let their Wool grow for our Use, Silk-Worms, in Emulation with each other, spin rich Stuffs and spend themselves to bestow them upon us. They make of their Cod a Kind of Tomb, and shutting up themselves in their own Work, they are new-born under another Figure, in order to perpetuate themselves. On the other hand, the Bees carefully suck and gather the Juice of Odorous and fragrant Flowers, in order to make their Honey; and range it in such an Order as may serve for a Pattern to Men. Several In-

sects

ts are transform'd, sometimes in-  
 Flys, sometimes into Worms, or  
 eggs. If one should think such  
 eds useless, let him consider, that  
 at makes a Part of the Great Spe-  
 cle of the Universe, and contri-  
 es to its Variety, is not altoge-  
 r useless to sedate, and contem-  
 tive Men. What can be more  
 ple, and more magnificent, than  
 t great Number of Common-  
 alths of Living Creatures so well  
 vern'd, and every Species of which  
 a different Frame from the o-  
 r? Every thing shews how much  
 Skill and Workmanship of the  
 ificer surpasses the vile Matter  
 has work't upon. Every living  
 eature, nay even Gnats appear  
 nderful to me. If one finds 'em  
 oublesom, he ought to consider,  
 t 'tis necessary that some Anxie-  
 and Pain be mix'd with Man's  
 nveniencies: For if nothing should  
 derate his Pleasures, and exercise  
 Patience, he would either grow  
 and effeminate, or forget him-

## SECT. XX.

*Admirable ORDER in which all the Bodies that make up the UNIVERSE are ranged.*

LET us now consider the Wonders that shine equally both in the largest, and the smallest Bodies. On the one side, I see the Sun so many Thousand Times bigger than the Earth; I see him circulating in a Space, in Comparison of which, he is himself but a bright Atom. I see other Stars, perhaps still bigger than he, that roll in other Regions, still farther distant from us. Beyond those Regions, which escape all Measure, I still confusedly perceive other Stars, which can neither be counted nor distinguish'd. The Earth, on which I stand, is but one Point, in Proportion to the Whole, in which no Bound can ever be found. The Whole is so well put together, that not one single Atom can be put out of its Place, without unhinging this immense Machine; and it moves  
in



in such excellent Order, that its very Motion perpetuates its Variety and Perfection. Sure it must be the Hand of a Being, that does every Thing without any Trouble, that still keeps steady, and governs this great Work for so many Ages ; and whose Fingers *play with the Universe*, to speak with the Scripture.

*Ludens in  
Orbe ter-  
rarum.*

S E C T. XXI.

*Wonders of the INFINITELY LITTLE.*

**O**N the other Hand, the Work is no less to be admired in Little, than in Great : For I find as well in Little as in Great, a kind of Infinite that astonishes me. It surpasses my Imagination, to find in a Hand-worm, as one does in an Elephant or Whale, Limbs perfectly well Organized ; a Head, a Body, Legs, and Feet, as distinct and as well form'd as those of the biggest Animals. There are in every Part of those Living Atoms, Muscles, Nerves, Veins, Arteries, Blood ; and in that Blood ramous particles, and Humours ; in these

Humours some Drops that are themselves composed of several Particles: Nor can one ever stop in the Discussion of this infinite Composition of so infinite a Whole.

The Microscope discovers to us in every Object, as it were a Thousand other Objects that had escap'd our Notice. But how many other Objects are there in every Object discover'd by the Microscope, which the Microscope it self cannot discover? What should not we see if we could still subtilize and improve more and more the Instruments, that help our weak and dull Sight? Let us supply by our Imagination what our Eyes are defective in; and let our Fancy it self be a kind of Microscope, and represent to us in every Atom a Thousand new and invisible Worlds: But it will never be able incessantly to paint to us new Discoveries in little Bodies; it will be tired, and forced at last to stop, and sink, leaving in the smallest Organ of a Body, a Thousand Wonders undiscover'd.

SECT.

S E C T. XXII.

*Of the STRUCTURE or FRAME of the ANIMAL.*

**L**ET us confine our selves within the Animal's Machine, which has Three Things that never can be too much admired: *First*, It has in it wherewithal to defend it self against those that attack it, in order to destroy it. *Secondly*, It has a Faculty of reviving it self by Food. *Thirdly*, It has wherewithal to perpetuate its Species by Generation. Let us bestow some Considerations on these Three Things.

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S E C T. XXIII.

*Of the INSTINCT of the ANIMAL.*

**A**Nimals are endow'd with what is call'd *Instinct*, both to approach useful and beneficial Objects, and to avoid such as may be noxious and destructive to them. Let us not inquire wherein this Instinct consists, but content our selves with



## THE EXISTENCE

Matter of Fact, without Reasoning upon it.

The tender Lamb smells his Dam afar off, and runs to meet her. A Sheep is seiz'd with Horror at the Approach of a Wolf, and flies away before he can discern him. The Hound is almost infallible in finding out a Stag, a Buck, or a Hare, only by the Scent. There is in every Animal an impetuous Spring, which, on a sudden, gathers all the Spirits; distends all the Nerves; renders all the Joints more supple and pliant; and increases in an incredible manner, upon sudden Dangers, his Strength, Agility, Speed, and Cunning, in order to make him avoid the Object that threatens his Destruction. The Question in this Place is not to know, whether Beasts are endow'd with Reason or Understanding: For I do not pretend to engage in any Philosophical inquiry. The Motions I speak of are intirely Indeliberate, even in the Machine of Man. If, for Instance, a Man that dances on a Rope, should, at that Time, reason on the Laws and Rules of *Equilibrium*, his Reasoning

Reasoning would make him lose that very *Equilibrium*, which he preserves admirably well without arguing upon the Matter; and Reason would then be of no other Use to him but to throw him on the Ground. The same happens with Beasts; Nor will it avail any Thing to object, that they reason as well as Men; for this Objection does not in the least weaken my Proof; And their Reasoning can never serve to account for the Motions we admire most in them. Will any one affirm that they know the nicest Rules of Mechanicks, which they observe with perfect Exactness, whenever they are to run, leap, swim, hide themselves, double, use shifts to avoid pursuing Hounds, or to make use of the strongest Part of their Bodies to defend themselves? Will he say that they naturally understand the Mathematicks, which Men are ignorant of? Will he dare to advance, that they perform with Deliberation and Knowledge all those impetuous and yet so exact Motions, which even Men perform without Study or Premeditation? Will he  
allow

allow them to make use of Reason in those Motions, wherein 'tis certain Man does not? 'Tis an Instinct, will he say, that Beasts are govern'd by. I grant it: For 'tis, indeed, an Instinct. But this Instinct is an admirable Sagacity and Dexterity, not in the Beasts, who neither do, nor can then have Time, to reason; but in the superior Wisdom that governs them. That Instinct, or Wisdom that thinks, and watches for Beasts, in indeliberate Things, wherein they could neither watch nor think, even supposing them to be as reasonable as we, can be no other than the Wisdom of the Artificer that made these Machines. Let us therefore talk no more of *Instinct* or *Nature*; which are but fine empty Names, in the Mouth of the Generality that pronounce them. There is in what they call *Nature* and *Instinct*, a superior Art, and Contrivance, of which Humane Invention is but a Shadow. What's beyond all Question is, That there are in Beasts a prodigious Number of Motions entirely indeliberate, and which, yet

yet are perform'd according to the nicest Rules of Mechanicks. 'Tis the Machine alone that follows those Rules: Which is a Fact independent from all Philosophy; and Matter of Fact is ever decisive. What would a Man think of a Watch that should fly or slip away, turn again, or defend it self, for its own Preservation, if he went about to break it? Would he not admire the Skill of the Artificer? Could he be induced to believe that the Springs of that Watch had form'd, proportion'd, ranged, and united themselves, by mere Chance? Could he imagine that he had clearly explain'd and accounted for such industrious and skilful Operation, by talking of the *Nature* and *Instinct* of a Watch, that should exactly shew the Hour to his Master, and slip away from such as should go about to break its Springs to Pieces?

SECT.

## SECT. XXIV.

## Of Food.

**W**HAT's more noble than a Machine which continually repairs, and renews it self? The Animal, stinted to his own Strength, is soon tired and exhausted by Labour: But the more he takes Pains, the more he finds himself press'd to make himself Amends for his Labour, by more plentiful Feeding. Aliments daily restore the Strength he had lost. He puts into his Body another Substance that becomes his own, by a Kind of Metamorphosis. At first it is pounded, and being changed into a Liquor, it purifies, as if it were strain'd thro' a Sieve, in order to separate any Thing that's gross from it; afterwards it arrives at the Center, or *Focus* of the Spirits, where it is subtiliz'd, and becomes Blood. And ruuning, at last, and penetrating through numberless Vessels to moisten all the Members, it filtrates in the Flesh, and becomes it self Flesh. So many Aliments, and Liquors of various Colours, are then

no



no more than one and the same Flesh; and Food which was but an Inanimate Body, preserves the Life of the Animal, and becomes Part of the Animal himself; the other Parts of which he was composed being exhaled by an insensible and continual Transpiration. The Matter which, for Instance, was Four Years ago such a Horse, is now but Air, or Dung. What was then either Hay, or Oats, is become that same Horse, so fiery, and vigorous: At least, he is accounted the same Horse, notwithstanding this insensible Change of his Substance.

## S E C T. XXV.

*Of S L E E P.*

**T**HE natural Attendant of Food is Sleep; in which the Animal forbears not only all his outward Motions, but also all the Principal inward Operations, which might too much stir and dissipate the Spirits. He only retains Respiration, and Digestion; so that all Motions that might

might wear out his Strength are suspended, and all such as are proper to recruit and renew it, go on freely of themselves. This Repose, which is a Kind of Enchantment, returns every Night, while Darkness interrupts and hinders Labour. Now, who is it that contrived such a Suspension? Who is it that so well chose the Operations that ought to continue; and, with so just Discernment, excluded all such as ought to be interrupted? The Next Day, all ~~past~~ Fatigue is gone and vanish'd. The Animal works on, as if he had never work'd before; and this Reviving gives him a Vigacity and Vigour that invites him to new Labour. Thus the Nerves are still full of Spirits, the Flesh smooth, the Skin whole, tho' one would think it should waste and tear: The Living Body of the Animal soon wears out Inanimate Bodies, even the most solid that are about it; and yet does not wear out it self. The Skin of a Horse, for Instance, wears out several Saddles; and the Flesh of a Child, tho' very delicate and tender, wears out many Cloaths, whilst it daily grows stronger. If this Renewing of Spi-  
rits

rits were perfect, it would be real Immortality, and the Gift of Eternal Youth. But the same being imperfect, the Animal insensibly loses his Strength, decays, and grows old, because every Thing that's created ought to bear a Mark of Nothingness from which it was drawn, and have an End.

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# SECT. XXVI.

## Of GENERATION.

**W**HAT's more admirable, than the Multiplication of Animals? Look upon the Individuals: No Animal is immortal. Every Thing grows old; every Thing passes away; every Thing disappears; every Thing, in short, is annihilated. Look upon the Species: Every Thing subsists; every Thing is permanent, and immutable, tho' in a constant Vicissitude. Ever since there have been on Earth Men that have taken care to preserve the Memory of Events, no Lions, Tigers, Wild-Boars, or Bears, were even known

to form themselves by Chance, Caves, or Forests. Neither do we see any Fortuitous Productions of Dogs, or Cats. Bulls and Sheep never born of themselves, either in Stables, Folds, or on Pasture Grounds. Every one of those Animals owes his Birth to a certain Male and Female of his Species.

All those different Species are preserved much the same, in all Ages. We do not find that for Three Thousand Years past, any one has perished or ceased; neither do we find that any one multiplies to such an Extent as to be a Nuisance, or Inconvenience to the rest. If the Species of Wolves, Lions, Bears, and Tigers, multiplied to a certain excessive Degree, they would not only destroy the Species of Stags, Bucks, Sheep, Goats, and Bulls; but even get the Mastery over Mankind, and unpeopled the Earth. Now who maintains so just a Measure, as never either to extinguish those different Species, or to suffer them to multiply so fast?

But this continual Propagation of every Species is a Wonder with which

we are grown too familiar. What would a Man think of a Watch-maker, who should have the Art to make Watches, which, of themselves, should produce others *ad infinitum*, in such a Manner that Two Original Watches should be sufficient to multiply and perpetuate their Species over the whole Earth? What would he say of an Architect, that should have the Skill to build Houses, which should build others, to renew the Habitations of Men, before the First should decay and be ready to fall to the Ground? 'Tis however what we daily see among Animals. They are no more, if you please, than mere Machines, as Watches are: But, after all, the Author of these Machines has endow'd them with a Faculty to reproduce or perpetuate themselves *ad infinitum*, by the Conjunction of Both Sexes. Affirm, if you please, that this Generation of Animals is perform'd, either by Moulds or by an exprefs Configuration of every Individual; which of these Two Opinions you think fit to pitch upon, it comes all to one; nor is the Skill of

F the

the Artificer less conspicuous. If you suppose that at every Generation, the Individual, without being cast into a Mould, receives a Configuration made on purpose: I ask, who it is that manages and directs the Configuration of so compounded a Machine, and which argues so much Art and Industry? If, on the contrary, to avoid acknowledging any Art in the Case, you suppose that every Thing is determin'd by the Moulds: I go back to the Moulds themselves, and ask, who is it that prepared them? In my Opinion they are still greater Matter of Wonder, than the very Machines which are pretended to come out of them.

Therefore let who will suppose that there were Moulds in the Animals that lived Four Thousand Years ago, and affirm, if he pleases, that those Moulds were so inclosed one within another *ad infinitum*, that there was a sufficient Number for all the Generations of those Four Thousand Years; and that there is still a sufficient Number ready prepared for the Formation of all the Animals that shall preserve their Species in all succeeding

ceeding Ages. Now, these Moulds which, as I have observ'd, must have all the Configuration of the Animal, are as difficult to be explain'd, or accounted for, as the Animals themselves: And are besides attended with far more unexplicable Wonders. 'Tis certain that the Configuration of every individual Animal requires no more Art and Power than is necessary to frame all the Springs that make up that Machine; but when a Man supposes Moulds: *First*, He must affirm, That every Mould contains in Little, with unconceivable Niceness, all the Springs of the Machine it self: Now, 'tis beyond Dispute, that there is more Art in making so compound a Work in Little, than in a larger Bulk. *Secondly*, He must suppose, That every Mould, which is an Individual prepared for a first Generation, contains distinctly within it self, other Moulds contain'd within one another *ad infinitum*, for all possible Generations, in all succeeding Ages. Now what can be more artful, and more wonderful in Matter of Mechanism, than such a Preparation of an infinite Number

of Individuals, all form'd, before hand, in One from which they are to spring? Therefore the Moulds are of no Use to explain the Generations of Animals, without supposing any Art or Skill: For, on the contrary Moulds would argue a more Artificial Mechanism, and more wonderful Composition.

What's manifest and undisputable independently from all the Systems of Philosophers, is, that the fortuitous Concourse of Atoms, never produce without Generation, in any Part of the Earth, any Lions, Tiger Bears, Elephants, Stags, Bull Sheep, Cats, Dogs, or Horse. These, and the like, are never produc'd but by the Encounter of Two of their Kind of different Sex. The Two Animals that produce a Third are not the True Authors of the Art that shines in the Composition of the Animal ingendred by them. They are so far from knowing how to perform that Art, that they do not so much as know the Composition, or Frame of the Work that results from their Generation. Nay, they know not so much as any particular Spirit



of it; having been no more than blind and involuntary Instruments, made use of for the Performance of a Marvellous Art, to which they are absolute Strangers, and of which they are perfectly ignorant. Now I'd fain Know, whence comes that Art, which is none of theirs? What Power and Wisdom knows how to employ, for the Performance of Works of so ingenious and intricate a Design, Instruments so incapable to know what they are doing, or to have any Notion of it? Nor does it avail any Thing to suppose that Beasts are endow'd with Reason: Let a Man suppose them to be as rational as he pleases in other Things: yet he must own, that in Generation, they have no share in the Art that's conspicuous in the Composition of the Animals they produce.

Let us carry the Thing further, and take for granted the most wonderful Instances that are given of the Skill and Forecast of Animals. Let us admire, as much as you please, the Certainty with which a Hound takes a Spring into a Third Way; as soon as he finds by his

## THE EXISTENCE.

Nose, that the Game he pursues has left no Scent in the other Two. Let us admire the Hind, who, they say, throws a good Way off her Young Fawn, into some hidden Place, that the Hounds may not find him out by the Scent of his strain. Let us even admire the Spider who with her Cobwebs lays subtle Snares to trap Flys, and fall unawares upon them before they can disintangle themselves. Let us also admire the Hern, who, they say, puts his Head under his Wing, in order to hide his Bill under his Feathers, thereby to stick the Breast of the Bird of Prey that stoops at him. Let us allow the Truth of all these wonderful Instances of Rationality; for all Nature is full of such Prodigies. But what must we infer from them? In good Earnest, if we carefully examine the Matter, we'll find that they prove too much. Shall we say, That Animals are more rational than We? Their Instinct has undoubtedly more certainty than our Conjectures. They have learnt neither Logick nor Geometry: Neither have they any Course  
or

of G O D.

or Method of Improvement, or any Science. Whatever they do is done of a sudden without Study, Preparation, or Deliberation. We commit Blunders and Mistakes every Hour of the Day after we have a long while argued and consulted together: Whereas Animals, without any Reasoning, or Premeditation, perform every Hour, what seems to require most Discernment, Choice, and Exactness. Their Instinct is in many Things, infallible: But that Word, *Instinct* is but a fair Name void of Sense. For what can an Instinct more just, exact, precise, and certain than Reason itself mean, but a more perfect Reason? We must therefore suppose a wonderful Reason and Understanding, either in the Work, or in the Artificer; either in the Machine, or in him that made it. When for Instance, I find that a Watch shews the Hours with such Exactness as surpasses my Knowledge: I presently conclude, that if the Watch itself does not reason, it must have been made by an Artificer, who, in that Particular, reason'd better and had more Skill than Myself. In

like manner, when I see Animals, who every Moment perform Actions that argue a more certain Art and industry than I am Master of, I immediately conclude, that such marvellous Art must necessarily be either in the Machine, or in the Artificer that framed it. Is it in the Animal himself? But how is it possible he should be so Wise, and so infallible in some Things? And if this Art is not in him, it must of necessity be in the Supreme Artificer that made that Piece of Work, just as all the Art of a Watch is in the Skill of the Watchmaker.

## SECT. XXVII.

*Tho' BEASTS commit some MISTAKES, yet their Instinct is, in many Cases, INFALLIBLE.*

**D**O not object to me, that the Instinct of Beasts is in some Things defective, and liable to Error. 'Tis no wonder Beasts are not infallible in every Thing, but 'tis rather a Wonder they are so in many Cases. If they were infallible in every Thing,

Thing, They should be endow'd  
 with a Reason infinitely perfect; in  
 short, they should be Deities. In  
 the Works of an infinite Power there  
 can be but a finite Perfection: O-  
 therwise G O D should make Creatures  
 like, or equal to Himself, which is  
 impossible. He therefore cannot place  
 Perfection, nor consequently Reason  
 in his Works, without some Bounds,  
 and Restrictions; But those Bounds  
 do not prove that the Work is void of  
 Order or Reason. Because I mistake  
 sometimes, it does not follow, that I  
 have no Reason at all, and that I do  
 every thing by mere Chance; but  
 only that my Reason is stinted, and  
 imperfect. In like manner, because  
 a Beast is not by his Instinct infall-  
 ible in every thing, tho' he be so in  
 many, it does not follow that there  
 is no manner of Reason in that Ma-  
 chine; but only, that such a Machine  
 has not a boundless Reason. But af-  
 ter all, 'tis a constant Truth, that in  
 the Operations of that Machine, there  
 is a regular Conduct, a marvellous  
 Art, and a Skill which in many Ca-  
 ses, amounts to Infallibility. Now,  
 to whom shall we ascribe this infal-  
 lible

The EXISTENCE  
 libe Skill? To the Work, or its Arti-  
 ficer?

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S E C T. XXVIII.

*'Tis impossible BEASTS should have SOULS.*

**I**F you affirm that Beasts have Souls different from their Machines, I immediately ask you, of what Nature are those Souls, entirely different from, and united to Bodies. Who is it that knew how to unite them to Natures so vastly different? Who is it that has such absolute Command over so opposite Natures, as to put and keep them in such a regular, and constant a Society, and wherein mutual Agreement and Correspondence are so necessary and so quick?

If on the contrary you suppose that the same Matter may sometimes think, and sometimes not think according to the various Rangling, and Configurations it may receive; I will not tell you in this Place, that Matter cannot think; and that one cannot conceive that the Parts of a Stone, without adding any thing to it, may  
 ever

ever know themselves, whatever Degree of Motion, whatever Figure you may give them. I will only ask you now, wherein that precise Ranging and Configuration of Parts, which you speak of, consists? According to your Opinion there must be a Degree of Motion, wherein Matter does not yet reason, and then another much like it, wherein, on a sudden, it begins to reason, and know itself. Now, who is it that knew how to pitch upon that precise Degree of Motion? Who is it that has discover'd the Line in which the Parts ought to move? Who is it that has measured the Dimensions so nicely as to find out and state the Bigness, and Figure every Part must have, to keep all manner of Proportions between themselves in the Whole? Who is it that has regulated the outward Form, by which all those Bodies are to be stinted? In a Word, who is it that has found all the Combinations, wherein Matter thinks, and without the least of which, Matter must immediately cause to think? If you say 'tis Chance: I answer, that you make Chance rational to  
such

such a Degree, as to be the Source of Reason it self. Strange Prejudice and Intoxication of some Men, not to acknowledge a most Intelligent Cause, from which we derive all Intelligence; and rather chuse to affirm, that the purest Reason, is but the Effect of the Blindest of all Causes, in such a Subject as Matter, which of it self, is altogether incapable of Knowledge! Certainly there's nothing a Man of Sense would not admit, rather than so extravagant and absurd an Opinion.

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### SECT. XXIX.

*SENTIMENTS of some of the ANCIENTS,  
concerning the SOUL and KNOWLEDGE of  
Beasts.*

**T**HE Philosophy of the Ancients, tho' very lame and imperfect, had nevertheless a Glimpse of this Difficulty: And therefore in order to remove it, some of them pretended, That the Divine Spirit, interspers'd and scatter'd throughout the Universe, is a superior Wisdom,



dom, that continually operates in all Nature, especially in Animals, just as Souls act in Bodies; and that this continual Impression, or Impulse of the Divine Spirit, which the Vulgar call *Instinct*, without knowing the True Signification of that Word, was the Life of all living Creatures. They added, That those Sparks of the Divine Spirit were the Principle of all Generations; That Animals receiv'd them in their Conception, and at their Birth; and that the Moment they dy'd, those Divine Particles disengaged themselves from all terrestrial Matter, in order to fly up to Heaven, where they shone and roll'd among the Stars. 'Tis this Philosophy, at once so magnificent and so fabulous, which *Virgil* so gracefully expresses, in the following Verses upon Bees:

*Esse \* quibus Partem Divinae Mentis, & haustum*

*Aethrios dixere: Deum namque ire per omnes*

*Terrasque, Trahusque Maris, Cælumque profundum.*

*Hinc Pecudes, Armenta, Viros, Genus omne Ferasum,*

*Quemque Sibi tenuis nascentem arcessere Vitas.*

\* *Virg.*  
*Georg.*  
*Lib. iv.*

*Scilicet*

## The EXISTENCE.

*Scilicet hoc reddi deinde, ac resoluta refertur*

*Omnia, nec Morti esse Locum, sed viva volare*

*Sideris in Numcrum, atque alto succedere Celo.*

That is,

- Induc'd by such Examples, some have taught
- That Bees have Portions of Etherial Thought :
- Endu'd with Particles of Heavenly Fires :
- For GOD the whole created Mass inspires.
- Thro' Heav'n, and Earth, and Ocean Depth He  
[throws
- His Influence round, and kindles as He goes.
- Hence Flocks, and Herds, and Men, and Beasts,  
[and Fowls,
- With Breath are quicken'd, and attract their Souls.
- Hence take the Form His Prescience did ordain,
- And into Him, at length, resolve again.
- No Room is left for DEATH, they mount the Sky,
- And to their own congenial Planets fly.

*Dryden's Virgil.*

That Divine Wisdom that moves  
all the known Parts of the World,  
had made so deep an Impression  
upon

upon the *Stoicks*, and on *Plato* before them, that they believ'd the whole World to be an Animal: But a Rational, and Wise Animal, in short, the Supreme GOD. This Philosophy reduc'd POLYTHEISM, or the Multitude of GODS, to DEISM, or One GOD; and that One GOD to NATURE, which according to them was Eternal, Infallible, Intelligent, Omnipotent, and Divine. Thus Philosophers, by striving to keep from, and rectify the Notions of Poets, dwindled again, at last, into Poetical Fancies; since they assign'd as the Inventors of Fables did, a Life, an Intelligence, an Art, and a Design to all the Parts of the Universe, that appear most inanimate. Undoubtedly, they were sensible of the wonderful Art that's conspicuous in Nature; And their only Mistake lay in Ascribing to the Work, the Skill of the Artificer.

## S E C T. XXX.

*Of M A N.*

**L**ET us not stop any longer with Animals inferior to Man. 'Tis high Time to consider and study the Nature of Man himself, in order to discover Him, whose Image he is said to bear. I know but two sorts of Beings in all Nature : Those that are endow'd with Knowledge or Reason, and those that are not. Now Man is a Compound of these two Modes of Being. He has a Body, as the most inanimate corporeal Bodies have; And he has a Spirit, a Mind, or a Soul, that is, a Thought whereby he knows himself, and perceives what's about him. If it be true, that there is a First Being who has drawn or created all the rest from Nothing, Man is truly his Image; For he has, like Him, in his Nature all the real Perfection that is to be found in those two various Kinds or Modes of Being. But an Image, is  
but

but an Image still, and can be but an Adumbration or Shadow of the true Perfect Being.

Let us begin to study Man by the Contemplation of his Body. I know not, said a Mother to her Children, in the Holy Writ, how you were form'd in my Womb. Nor is it, indeed, the Wisdom of the Parents that forms so compounded, and so regular a Work. They have no share in that wonderful Art; let us therefore leave them, and trace it up higher.

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#### S E C T. XXXI.

*Of the STRUCTURE of MAN'S BODY.*

**T**HE Body is made of Clay; But let us admire the Hand that framed and polish'd it. The Artificer's Seal is stamp'd upon his Work. He seems to have delighted in making a Master-Piece with so vile a Matter. Let us cast our Eyes upon that Body, in which the Bones sustain the Flesh that covers them. The Nerves that are extended in it, make up all its Strength;  
G. and

and the Muscles with which the Sinews weave themselves, either by swelling, or extending themselves, perform the most exact and regular Motions. The Bones are divided at certain distances; but they have Joints, whereby they are set one within another; and are tied by Nerves, and Tendons. *Cicero*, admires with Reason, the excellent Art with which the Bones are knit together: For what's more supple for all various Motions? And, on the other Hand, what's more firm and durable? Even after a Body is dead, and its Parts are separated by Corruption, we find that these Joints and Ligaments can hardly be destroy'd. Thus this Humane Machine or Frame is either Strait or Crooked, Stiff or Supple, as we please. From the Brain, which is the Source of all the Nerves, spring the Spirits, which are so subtle, that they escape the Sight; and nevertheless so real, and of so great Activity and Force, that they perform all the Motions of the Machine, and make up all in Strength. These Spirits are, in an Instant, convey'd

to

to the very Extremities of the Members. Sometimes they flow gently and regularly, sometimes they move with Impetuosity, as Occasion requires; and they vary, *ad Infinitum*, the Postures, Gestures, and other Actions of the Body.

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S E C T. XXXII.

*Of the SKIN.*

**L**ET us consider the Flesh. It is cover'd in certain Places with a soft and tender Skin, for the Ornament of the Body. If that Skin, that renders the Object so agreeable, and gives it so sweet a Colour, were taken off, the same Object would become ghastly, and create Horror. In other Places that same Skin is harder and thicker, in order to resist the Fatigue of those Parts. As for Instance, how harder is the Skin of the Feet than that of the Face? And that of the hinder Part of the Head, than that of the Forehead? That Skin is all over full of Holes like a Sieve: But those Holes, which are call'd

*Pores*, are imperceptible. Altho' Sweat, and other Transpirations exhale through those *Pores*, the Blood never runs out that way. That Skin has all the Tenderness necessary to make it transparent, and give the Face a lively, sweet, and graceful Colour. If the Skin were less close, and less smooth, the Face would look bloody, and excoriated. Now, who is that knew how to temper and mix those Colours with such Nicety, as to make a Carnation which Painters admire, but never can perfectly imitate?

## S E C T. XXXIII.

*Of VEINS and ARTERIES.*

**T**HERE are in Man's Body numberless Branches of Blood-Vessels. Some of them carry the Blood from the Center to the extrem Parts, and are call'd Arteries. Through those various Vessels runs the Blood, a Liquor Soft, and Oily, and by this Oiliness proper to retain the most subtle Spirits, just as the most subtle and spirituous Essences

are



are preserv'd in gummy Bodies. This Blood moistens the Flesh, as Springs and Rivers water the Earth; and after it has filtrated in the Flesh, it returns to its Source, more slowly, and less full of Spirits: But it renews, and is again subtiliz'd in that Source, in order to circulate without Ceasing.

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S E C T. XXXIV.

*Of the BONES, and the JOINTING.*

**D**O you consider that excellent Order and Proportion of the Limbs? The Legs and Thighs are great Bones jointed one with another, and knit together by Nerves. They are two Sorts of Pillars, equal and regular, erected to support the whole Fabrick. But these Pillars fold; and the *Rotula* † of the Knee, † *vulgarly* is a Bone of a Circular Figure, *the Knee-* <sup>pan.</sup> which is placed on purpose on the Joint, in order to fill it up, and preserve it, when the Bones fold, for the Bending of the Knee. Each Column or Pillar has its Pedestal, which is compos'd of various inlaid

Parts, so well jointed together, that they can either bend, or keep stiff, as occasion requires. The Pedestal, I mean the Foot, turns, at a Man's Pleasure, under the Pillar. In this Foot we find nothing but Nerves, Tendants, and little Bones closely knit, that this Part may, at once, be either more supple, or more firm, according to various Occasions. Even the Toes with their Articles and Nails, serve to feel the Ground a Man walks on, to lean and stand with more Dexterity and Nimbleness, the better to preserve the Equilibrium of the Body, to rise, or to stoop. The Two Feet stretch forward, to keep the Body from falling that way, when it stoops, or bends. The Two Pillars are jointed together at the Top, to bear up the rest of the Body; but are still divided there in such a Manner, that that Joint affords Man the Conveniency of resting himself, by sitting on the Two biggest Muscles of the Body.

The Body of the Structure is proportion'd to the Height of the Pillars. It contains such Parts as  
are

necessary for Life, and which consequently ought to be placed in the center, and shut up in the securest place. Therefore Two Rows of ribs pretty close to one another, at come out of the Back-Bone, the Branches of a Tree do from Trunk, form a kind of Hoop, to de and shelter those noble and tender Parts. But because the Ribs would not entirely shut up that Center of the Humane Body, without mending the Dilatation of the Stomach and of the Entrails, they form a Hoop but to a certain Place, low, which they leave an empty space, that the Inside may freely bend and stretch, both for Respiration, and Feeding.

As for the Back-Bone, all the works of Man afford nothing so fully and curiously wrought. It could be too stiff, and too frangible brittle, if it were made of one single Bone: And in such a Case it could never bend or stoop. The Author of this Machine has prevented that Inconveniency, by joining *Vertebrae*, which jointing one to another make up a Whole, con-

sisting of several Pieces of Bones, more strong than if it were of a single Piece. This Compound being sometimes supple and pliant, and sometimes stiff, stands either upright, or bends, in a Moment, as a Man pleases. All these *Vertebra* have in the Middle a Gutter or Channel, that serves to convey a Continuation of the Substance of the Brain to the Extremities of the Body, and with speed to send thither Spirits through that Pipe.

But who can forbear Admiring the Nature of the Bones? They are very hard; and we see that even the Corruption of all the rest of the Body, after Death, does not affect them. Nevertheless they are full of numberless Holes and Cavities that make them lighter; and in the Middle they are full of the Marrow, or Pith, that is to nourish them. They are bored exactly in those Places through which the Ligaments that knit them are to pass. Moreover, their Extremities are bigger than the Middle, and form, as it were, two Semi-circular Heads, to make one Bone turn more easily with

with another, that so the whole may fold and bend without Trouble.

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## S E C T. XXXV.

*Of the ORGANS.*

**W**ithin the Inclosure of the Ribs are placed in Order, all the Great Organs, such as serve to make a Man breath; such as digest the Aliments; and such as make new Blood. Respiration, or Breathing is necessary to temper inward Heat, occasion'd by the Boyling of the Blood, and by the impetuous Course of the Spirits. The Air is a Kind of Food that nourishes the Animal, and by Means of which he renews himself, every Moment of his Life. Nor is Digestion less necessary to prepare sensible Aliments towards their being changed into Blood; which is a Liquor apt to penetrate every where, and to thicken into Flesh in the extream Parts, in order to repair in all the Members, what they lose continually both by Transpiration, and the Waste of  
Spirits

Spirits. The Lungs are like great **Con-**  
**vers,** which being **Spungy**, easily di-  
 late and contract themselves, and as  
 they incessantly take in, and blow  
 out a great Deal of Air, they form a  
 Kind of Bellows that are in perpe-  
 tual Motion. The Stomach has a  
 Dissolvent that causes Hunger, and  
 puts Man in Mind of his Want of  
 Food. That Dissolvent, which sti-  
 mulates and pricks the Stomach,  
 does, by that very Uneasiness, pre-  
 pare for it a very lively Pleasure,  
 when its Craving is satisfied by the  
 Aliments. Then Man, with Delight,  
 fills his Belly with strange Matter,  
 which would create Horror in him,  
 if he could see it as soon as it has  
 enter'd his Stomach, and which e-  
 ven displeases him, when he sees it  
 being already satisfied. The Sto-  
 mach is made in the Figure of a  
 Bag-Pipe. There the Aliments be-  
 ing dissolv'd by a quick Cotion, or  
 Digestion, are all confounded, and  
 make up a soft Liquor, which after-  
 wards becomes a Kind of Milk,  
 call'd *Chyle*; and which being, at  
 last, brought into the Heart, receives  
 there, through the Plenty of Spirits,  
 the

the Form, Vivacity, and Colour of Blood. But while the purest Juice of the Aliments passes from the Stomach into the Pipes destin'd for the Preparation of Chyle and Blood, the gross Particles of the same Aliments are separated, just as Bran is from Flower by a Sieve; and they are dejected downwards to ease the Body of them, through the most hidden Passages, and the most remote from the Organs of the Senses, lest these be offended at them. Thus the Wonders of this Machine are so great and numerous, that we find some unfathomable, even in the most abject and Mortifying Functions of the Body, which Modesty will not allow to be more particularly explain'd.

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A.

S E C T. XXXVI.

*Of the INWARD PARTS.*

**I** Own that the inward Parts are not so agreeable to the Sight, as the Outward: But then be pleas'd to observe, they are not made to be seen. Nay, it was necessary, according

according to Art and Design, that they should not be discover'd without Horror; And that a Man should not without Violent Reluctance, go about to discover them, by cutting open this Machine in another Man.

'Tis this very Horror that prepares Compassion and Humanity in the Hearts of Men, when one sees another wounded, or hurt. Add to this, with St. *Muslin*, that there are in those inward Parts a Proportion, Order, and Mechanism, which still please more an attentive inquisitive Mind, than external Beauty can please the Eyes of the Body. That Inside of Man, which is at once so ghastly and horrid, and so wonderful and admirable, is exactly as it should be, to denote DIRT AND CLAY WROUGHT BY A DIVINE HAND: For we find in it, both the Feeblity of the Creature, and the Art of the Creator.

SECT.



S E C T. XXXVII.

*Of the Arms, and their Use.*

**F**ROM the Top of that precious  
 Fabrick we have describ'd,  
 hang, the two *Arms*, which are ter-  
 minated by the *Hands*, and which  
 bear a perfect Symmetry one with  
 another. The *Arms* are knit with  
 the *Shoulders*, in such a Manner,  
 that they have a free Motion in  
 that Joynt. They are besides di-  
 vided at the *Elbow*, and at the  
*Wrist*, that they may fold, bend,  
 and turn with Quickness. The  
*Arms* are of a just Length to reach  
 all the Parts of the Body. They  
 are nervous and full of Muscles, that  
 they may, as well as the Back, be  
 often in Action, and sustain the  
 greatest Fatigue of all the Body.  
 The *Hands* are a Contexture of  
 Nerves and little Bones, set one  
 within another in such a Manner,  
 that they have all the Strength and  
 Suppleness necessary, to feel the  
 Neighbouring Bodies, to seize on  
 them, hold them fast, throw them,  
 draw them to one, push them off,  
 distin-

disintangle them, and untie them one from another. The Fingers, the Ends of which are armed with Nails, are by the Delicacy and Variety of their Motions, contrived to exercise the most curious and marvellous Arts. The Arms and Hands serve also, according as they are either extended, folded, or turn'd, to poise the Body in such a manner, as that it may stoop, without any Danger of Falling. The whole Machine has besides, independently from all After-Thoughts, a Kind of Spring that poises it on a sudden, and makes it find the *Equilibrium*, in all its different Postures and Positions.

## SECT. XXXVIII.

*Of the NECK and HEAD.*

**A**BOVE the Body rises the *Neck*, which is either firm, or flexible at Pleasure. Must a Man bear a heavy Burden on his Head? This Neck becomes as stiff as if it were made up of one single Bone. Has he a Mind to bow, or turn his Head? The Neck bends every Way,

as if all its Bones were disjointed. This Neck, a little raised above the Shoulders, bears up with Ease the HEAD, which over-rules and governs the whole Body. If it were less big, it would bear no Proportion with the rest of the Machine. And if it were bigger, it would not only be disproportion'd and deformed, but, besides, its Weight would both crush the Neck; and put Man in Danger of falling on the side it should lean a little too much. This Head, fortified on all sides by very thick and very hard Bones, in order the better to preserve the precious Treasure it encloses, is jointed with the *Vertebra* of the Neck, and has a very quick Communication with all the other Parts of the Body. It contains the Brain, whose Moist, Soft, and Spungy Substance, is made up of tender Filaments or Threads, woven together. This is the Center of all the Wonders we shall speak of afterwards. The Skull is regularly perforated, or bored, with exact Proportion and Symmetry, for the Two Eyes, the Two Ears, the Mouth, and the Nostrils. There

There are Nerves destin'd for Sensations, that exercise and play in most of those Pipes. The Nose, which has no Nerves for its Sensation, has a *Cribri-Form*, or *Spungy-Bone*, to let Odours pass on to the Brain. Amongst the Organs of these Sensations, the Chief are double, to preserve to one side what the other might happen to be defective in, by any Accident. These two Organs of the same Sensation are symmetrically placed either on the Forepart, or on the Sides, that Man may use them with more Ease, to the Right, or to the Left, or right against him, that is to say, towards the Place his Joynts direct his Steps, and all his Actions. Besides, the Flexibility of the Neck makes all those Organs turn in an Instant which way soever he pleases. All the hinder Part of the Head, which is the least able to defend it self, is therefore the thickest. It is adorn'd with Hair, which at the same time, serves to fortify the Head against the Injuries of the Air. And, on the other Hand, the Hair likewise adorns the Forepart of the Head, and renders

the Face more graceful. The Face, is the Forepart of the Head, wherein the principal Sensations meet and center, with an Order and Proportion that render it very beautiful, unless some Accident or other happen to alter and impair so regular a Piece of Work. The two Eyes are equal, being placed about the Middle, on the two Sides of the Head, that they may, without Trouble, discover afar off, both on the Right and Left, all strange Objects; and that they may commodiously watch for the Safety of all the Parts of the Body. The exact Symmetry with which they are placed, is the Ornament of the Face: And He that made them, has kindled in them, I know not what Celestial Flame, the like of which all the rest of Nature does not afford. These Eyes are a sort of Looking-Glasses, wherein all the Objects of the whole World are painted by turns, and without Confusion, in the Bottom of the *Retina* \* that the Thinking Part of Man may see them in those Looking-Glasses. But tho' we perceive all Objects by a double Organ, yet we

\* Or Net-like Membrane of the Eye.

H

never

never see the Objects double, because the Two Nerves that are Subserving to Sight in our Eyes, are but two Branches that unite in one Pipe, as the Two Glasses of a Pair of Spectacles unite in the Upper Part that joins them together. The Two Eyes are adorn'd with Two equal *Eye-Brows*; and that they may open and close, they are wrapp'd up with *Lids*, edg'd with Hair that defend so delicate a Part.

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## S E C T. XXXIX.

*Of the FOREHEAD, and other PARTS of the FACE.*

**T**HE *Forehead* gives Majesty and Gracefulness to all the Face; and serves to heighten all its *Features*. Were it not for the *Nose* which is placed in the Middle, the whole Face would look flat and deform'd; of which they are fully convinc'd who have happen'd to see Men, in whom that Part of the Face is mutilated. It is placed just above the Mouth, that it may the more easily discern, by the Odours, whatever is most proper to feed Man.

Man. The Two Nostrils serve at once, both for the Respiration, and Smell. Look upon the Lips: Their lively Colour, Freshness, Figure, Seat, and Proportion, with the other Features, render the Face most beautiful. The Mouth, by the Correspondence of its Motions, with those of the Eyes, animates, gladdens, saddens, softens, or troubles the Face, and by sensible Marks expresses every Passion. The Lips not only open to receive Food, but by their Suppleness, and the Variety of their Motions serve likewise to vary the *Sounds* that form *Speech*. When they open, they discover a double Row of Teeth, with which the Mouth is adorn'd. These Teeth are little Bones, set in order, in the Two *Jaw-Bones*, which have a Spring to open, and another to shut, in such a manner, that the Teeth grind, like a Mill, the Aliments, in order to prepare their *Digestion*. But these Aliments thus ground go down into the Stomach, through a Pipe different from that through which we breath; And these Two Pipes, tho' so neighbouring, have nothing common.

## S E C T. XL

*Of the TONGUE and TEETH.*

**T**HE Tongue is a Contexture of small Muscles and Nerves so very supple, that it winds and turns like a Serpent, with unconceivable Mobility and Pliantness. It performs in the Mouth the same Office, which either the Fingers, or the Bow of a Master of Musick perform on a Musical Instrument: For sometimes it strikes the Teeth, sometimes the Roof of the Mouth.

\* *The Wind-Pipe* There is a Pipe \* that goes into the Inside of the Neck, call'd *Throat*, from the Roof of the Mouth to the Breast, which is made up of Cartilaginous Rings nicely set one within another, and lin'd within with a very smooth Membrane, in order to render the Air that's push'd from the Lungs more sonorous. On the side of the Roof of the Mouth the End of that Pipe is open'd like a Flute, by a slit, that either extends, or contracts it self as is necessary to render the Voice either  
big,



big, or slender, hollow, or clear. But lest the Aliments, which have their separate Pipe should slide into the *Wind-Pipe*, *I have been describing*, there's a kind of *Valve* that lies on the Orifice of the Organ of the Voice, and playing like a Draw-Bridge, lets the Aliments freely pass, through their proper Channel, but never suffers the least Particle or Drop, to fall into the Slit of the *Wind-Pipe*. This sort of Valve has a very free Motion, and easily turns any way: So that by shaking on that half-open'd Orifice, it performs the softest Modulations of the Voice. This Instance is sufficient to shew by the by, and without entering long-winded Details of Anatomy, what a marvellous Art there is in the Frame of the inward Parts. And indeed the Organ I have described, is the most perfect of all Musical Instruments, nor have these any Perfection, but so far as they imitate that.

## SECT. XLI.

*Of the SMELL, TASTE, and HEARING.*

**W**HO were able to explain the Niceness of the Organs by which Man discerns the numberless Savours and Odours of Bodies? But how is it possible for so many different Voices to strike at once my Ear, without confounding one another, and for those Sounds to leave in me, after they have ceased to be, so lively, and so distinct Images of what they have been? How careful was the Artificer who made our Bodies to give our Eyes a moist, smooth, and sliding Cover to close them; and why did he leave our Ears open? Because, says *Cicero*, the Eyes must be shut against the Light in order to Sleep; and, in the mean Time, the Ears ought to remain open in order to give us Warning, and wake us by the Report of Noise, when we are in Danger of being surpriz'd. Who is it that, in an Instant, imprints in my Eye the Heaven, the Sea, and the Earth, seated at almost

*Lib. 2. de  
Nat. Deor*

an

an infinite Distance? How can the faithful Images of all the Objects of the Universe, from the Sun to an Atom, range themselves distinctly in so small an Organ? Is not the Substance of the Brain, which preserves, in Order, such lively Representations of all the Objects that have made an Impression upon us ever since we were in the World, a most wonderful Prodigy? Men admire with Reason the Invention of Books, wherein the History of so many Events, and the Collection of so many Thoughts, are preserv'd. But what Comparison can be made between the best Book, and the Brain of a Learned Man? There's no Doubt but such a Brain is a Collection infinitely more precious, and of a far more excellent Contrivance, than a Book. 'Tis in that small Repository that a Man never misses finding the Images he has occasion for. He calls them: And they come; He dismisses them and they sink I know not where, and disappear, to make Room for others. A Man shuts, or opens his Fancy at Pleasure, like a Book. He

as it were, its Leaves ; and, in an Instant, goes from one End to the other. There is even in Memory a Sort of Table, like the Index of a Book, which shews where certain remote Images are to be found. We do not find that these innumerable Characters, which the Mind of Man reads inwardly with so much Rapidity, leave any distinct Trace or Print in the Brain, when we open it. That admirable Book is but a Soft Substance, or a Sort of Bottom made up of tender Threads, woven one with another. Now what skilful Hand has laid up in that Kind of Dirt, which appears so shapeless, such precious Images, rang'd with such excellent and curious Art ?

## S E C T. XLII.

*Of the PROPORTION of MAN'S BODY.*

**S**UCH is the Body of Man in general : For I do not enter into an Anatomical Detail; my Design being only to discover the Art that's conspicuous in Nature, by the simple Cast  
of

of an Eye, without any Science. The Body of Man might undoubtedly be either much bigger and taller, or much lesser and smaller. But if, for Instance, it were but *one* Foot high, it would be insulted by most Animals, that would tread and crush it under their Feet. If it were as tall as a high Steeple, a small Number of Men would in few Days, consume all the Aliments a whole Country affords. They could find neither Horses, nor any other Beasts of Burden, either to carry them on their Backs, or draw them in a Machine with Wheels; Nor could they find sufficient Quantity of Materials to build Houses proportion'd to their Bigness; And as there could be but a small Number of Men upon Earth, so they should want most Conveniencies. Now, who is it that has so well regulated the Size of Man to so just a Standard? Who is it that has fix'd that of other Animals and living Creatures, with Proportion to that of Man? Of all Animals, Man only stands upright on his Feet; which gives him a Nobleness and Majesty that distinguishes

guishes him, even as to the Outside, from all that lives upon Earth. Not only his Figure is the Noblest, but he is also the strongest and most dextrous of all Animals, in Proportion to his Bigness. Let one nicely examine the Bulk and Weight of the most terrible Beasts, and he'll find, that tho' they have more Matter than the Body of a Man, yet a Vigorous Man has more Strength of Body than most wild Beasts. Nor are these dreadful to him, except in their Teeth and Claws. But Man, who has not such natural Arms in his Limbs, has yet Hands, whose Dexterity to make artificial Weapons, surpasses all that Nature has bestow'd upon Beasts. Thus Man either pierces with his Darts, or draws into his Snares, masters, and leads in Chains, the strongest and fiercest Animals. Nay, he has the Skill to tame them in their Captivity, and to sport with them as he pleases. He teaches Lions and Tigers to caress him; and gets on the Back of Elephants.

S E C T. XLIII.

*Of the SOUL, which alone, among all Creatures, thinks and knows.*

**B**UT the Body of Man, which appears to be the Master-Piece of Nature, is not to be compared to his Thought. 'Tis certain there are Bodies that do not think: Man, for instance, ascribes no Knowledge to Stone, Wood, or Metals, which undoubtedly are Bodies. Nay, it is so natural to believe that Matter cannot think, that all unprejudic'd Men cannot forbear Laughing, when they hear any one assert, that Beasts are but mere Machines; because they cannot conceive that mere Machines can have such Knowledge as they pretend to perceive in Beasts. They think it to be like Children's playing, and talking to their Puppets, the Ascribing any Knowledge to mere Machines. Hence it is, that the Ancients themselves, who knew no real Substance but the Body, pretended however, that the Soul of Man was a Fifth Element, or a sort of Quintessence without Name, unknown

known here below, indivisible, immutable, and altogether Celestial and Divine: Because they could not conceive, that the terrestrial Matter of the Four Elements could think, and

*Cic. Tusc.  
Quæst. Lib.  
1.*

Know itself: *Aristoteles quintam quandam Naturam censet esse, à quâ sit Mens. Cogitare enim, et providere, et discere, et docere..... in horum quatuor Generum nullo inesse putat; quintum Genus adhibet vacans Nomine.*

#### SECT. XLIV.

MATTER cannot think.

**B**UT let us suppose whatever you please, for I will not enter the Lists with any Sect of Philosophers: Here's an Alternative which no Philosopher can avoid. Either Matter can become a Thinking Substance, without adding any thing to it; or Matter cannot think at all, and so what thinks in us is a Substance Distinct from Matter, and which is united to it. If Matter can acquire the Faculty of Thinking, without adding any thing to it, it must, at least,  
be



be own'd, that all Matter does not think, and that even some Matter that now thinks, did not think Fifty Years ago; As for Instance, the Matter of which the Body of a young Man is made up, did not think ten years before he was born. It must then be concluded, that Matter can acquire the Faculty of Thinking by a Certain Configuration, Ranging, and Motion of its Parts. Let us, for instance, suppose the Matter of a Stone, or of a Heap of Sand. 'Tis agreed, this Part of Matter has no manner of Thought; and therefore to make it begin to think, all its Parts must be configured, ranged, and moved a certain Way, and to a certain Degree, Now, who is it that knew how to find, with so much Niceness, that Proportion, Order, and Motion that Way, and to such a Degree, above and below which Matter would never think? Who is it that has given all those just, exact, and precise Modifications to a Vile and Shapeless Matter, in order to form the Body of a Child, and to render it rational by Degrees? If on the contrary

it be affirm'd, that Matter cannot become a thinking Substance, without adding something to it, and that another Being must be united to it. I ask, what will that other Thinking Being be, whilst the Matter, to which it is united, only moves. Therefore, here are two Natures or Substances very unlike and distinct. We know one by Figures, and local Motions only; As we do the other by Perceptions and Reasoning. The one does not imply, or create the Idea of the other: For their respective Ideas have nothing in Common.




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 SECT. XLV.

*Of the UNION of the SOUL and Body, and which GOD alone can be the Author.*

**B**UT now, how comes it to pass that Beings so unlike, are so intimately united together in Man? Whence comes it that certain Motions of the Body so suddenly, and so infallibly raise certain Thoughts in the Soul? Whence comes it that the Thoughts of the Soul, so suddenly and so infallibly, occasion certain Motions

Motions in the Body? Whence proceeds so regular a Society, for Seventy or Fourſcore Years, without any Interruption? How comes it to paſs that this Union of Two Beings, and Two Operations, ſo very different, make up ſo exact a Compound, that many are tempted to believe to be a ſimple and indiviſible Whole? What Hand had the Skill to unite and tie together theſe two ſtreams and Oppoſites? 'Tis certain they did not unite themſelves by mutual Conſent: For Matter having of itſelf neither Thought nor Will, to make Terms and Conditions, it could not enter into an Agreement with the Mind. On the other Hand, the Mind does not remember that it ever made an Agreement with Matter; Nor could be ſubjected to ſuch an Agreement, if it had quite forgot it. If the Mind had freely, and of its own accord reſolv'd to ſubmit to the Impreſſions of Matter, it would not, however, ſubject it ſelf to them but when it ſhould remember ſuch a Reſolution, which, beſides, it might alter at Pleaſure. Nevertheless it

is certain, That in spite of it is dependent on the Body, and it cannot free itself from its Dependence, unless it destroy the Command of the Body by a Violent Interference. Besides, altho' the Mind had voluntarily subjected itself to Matter, it would not follow, that Matter reciprocally subjected to the Mind. The Mind would, indeed, have certain Thoughts, when the Body should have certain Motions: the Body would not be determined to have, in its Turn, certain Motions, as soon as the Mind should have certain Thoughts. Now it is more certain that this Dependence is reciprocal. Nothing is more absolute than the Command of the Mind over the Body. The Mind is free. And, instantly, all the Members of the Body are in Motion, they were acted by the most wonderful Machines. On the other hand, nothing is more manifest than the Power and Influence of the Body over the Mind: The Body is in Motion: And, instantly, the Mind is forc'd to think either with Pleasure or Pain, upon certain Objects.

what Hand equally powerful over these two Divers and Distinct Natures, has been able to bring them both under the same Yoke, and hold them captive in so exact and inviolable a Society? Will any Man say, 'twas Chance? If he does, will he be able either to understand what he means, or to make it understood by others? Has Chance by a Concourse of Atoms, hook'd together the Parts of the Body with the Mind? If the Mind can be hook'd with some Parts of the Body, it must have Parts itself, and consequently be a perfect Body: In which Case, we relapse into the First Answer, which I have already confuted. If on the contrary, the Mind has no Parts, nothing can hook it with those of the Body; nor has Chance wherewithall to tie them together.

In short, my Alternative ever returns, and is peremptory and decisive. If the Mind and Body are a Whole made up of Matter only, how comes it to pass that this Matter, which Yesterday did not, has this Day begun to think? Who is it that has bestow'd upon it what

it had not, and which is, without Comparison, more noble than Thoughtless Matter? What bestows Thought upon it, has it not itself, and how can it give what it has not? Let us even suppose, that Thought should result from a certain Configuration, Ranging and Degree of Motion, a certain Way, of all the Parts of Matter: What Artificer has had the Skill to find out all those just, nice, and exact Combinations, in order to make a Thinking Machine? If on the Contrary the Mind and Body are Two distinct Natures; What Power Superior to those Two Natures has been able to unite and tie together, without the Mind's Assent, or so much as its knowing which Way that Union was made? Who is it, that, with such absolute and Supreme Command, over-rules both Minds and Bodies, and keeps them in Society and Correspondence, and under a sort of Incomprehensible Policy?

SECT. XLVI.

*The SOUL has an ABSOLUTE COMMAND  
over the BODY.*

**B**E pleas'd to observe, That the Command of my Mind over my Body is supreme and absolute in its bounded Extent, since my single Will, without any Effort, or Preparation, causes all the Members of my Body, to move on a sudden and immediately, according to the Rules of Mechanicks. As the Scripture gives us the Character of GOD, who said after the Creation of the Universe, *Let there be Light, and there was Light*: In like manner, the inward Word of my Soul alone, without any Effort, or Preparation, makes what it says. I say, for Instance, within my self, through that inward, simple, and momentaneous Word, *Let my Body move, and it moves*, At the Command of that simple and intimate Will, all the Parts my Body are at Work. Immediately all Nerves are distended; all the Springs hasten to concur together; and the

whole Machine obeys, just as if every one of the most secret of those Organs, heard a supreme, and Omnipotent Voice. This is certainly the most simple and most effectual Power that can be conceiv'd. All the other Beings within our Knowledge, afford not the like Instance of it; and this is precisely what Men that are sensible and perswaded of a DEITY, ascribe to it, in all the Universe.

Shall I ascribe it to my feeble Mind, or rather to the Power it has over my Body, which is so vastly different from it? Shall I believe that my Will has that supreme Command of its own Nature; tho' in itself so weak and imperfect? But how comes it to pass that among so many Bodies, it has that Power over no more than one? For no other Body moves according to its Desires. Now, who is it that gave over one Body, the Power it had over no other? Will any Man be again so bold as to ascribe this to Chance?



## S E C T. XLVII.

*The POWER of the SOUL over the BODY,  
is not only SUPREME or ABSOLUTE, but  
BLIND, at the same Time.*

**B**UT that Power which is so supreme and absolute, is blind, at the same Time. The most simple and ignorant Peasant knows how to move his Body, as well as a Philosopher the most skill'd in Anatomy. The Mind of a Peasant commands his Nerves, Muscles and Tendons, which he knows not, and which he never heard of; He finds them, without knowing how to distinguish them, or knowing where they lie; he calls precisely upon such as he has occasion for; nor does he mistake one for 'tother. If a Rope Dancer, for Instance, does but will, the Spirit instantly run with Impetuousness, sometimes to certain Nerves, sometimes to others; all which distend, or slacken in due Time. Ask him which of them he set agoing, and which way he begun to move them? He will not so much

as understand what you mean. He is an absolute Stranger to what he has done in all the inward Springs of his Machine. The Lute-Player, who is perfectly well acquainted with all the Strings of his Instrument, who sees them with his Eyes, and touches them one after another with his Fingers, yet mistakes them sometimes. But the Soul that governs the Machine of Man's Body, moves all its Springs in Time, without seeing or discerning them; without being acquainted with their Figure, Situation, or Strength, and yet it never mistakes. What Prodigy is here! My Mind commands what it knows not, and cannot see; what neither has, nor is capable of any Knowledge: And yet it is infallibly obey'd. How much Blindness, and how much Power at once is here! The Blindness is Man's; But the Power whose is it? To whom shall we ascribe it unless it be to him, who sees what Man does not see, and performs in him what passes his Understanding? 'Tis to no purpose my Mind is willing to move the Bodies that surround it, and which

it knows very distinctly ; For none  
 of them stirs ; and it has not Po-  
 wer to move the least Atom by its  
 Will. There is but one single Body,  
 which some superior Power, must  
 have made its Property. With respect  
 to this Body, my Mind is but Willing,  
 and all the Springs of that Machine,  
 which are unknown to it, move in  
 Time, and in concert, to obey him.  
 St. *Augustin* who made these Refle-  
 ctions has express'd them excellent-  
 ly well. ' The inward Parts of our  
 Bodies, says he, cannot be living  
 but by our Souls : But our Souls  
 animate them far more easily than  
 they can know them. — The  
 Soul knows not the Body which  
 is subject to it — It does not  
 know, why it does not move the  
 Nerves, but when it pleases ; and  
 why, on the contrary, the Pulsa-  
 tion of Veins goes on without In-  
 terruption, whether the Mind will  
 or no. It knows not which is  
 the first Part of the Body it moves  
 immediatly, in order thereby to  
 move all the rest — It does not  
 know why it feels in spite of it  
 self, and moves the Members only

' when it pleases. 'Tis the Mind  
 ' does these Things in the Body :  
 ' But how comes it to pass, it nei-  
 ' ther knows what she does, nor  
 ' in what manner it performs it ?  
 ' Those who learn Anatomy, con-  
 ' tinue that Father, are taught by  
 ' others what passes within, and is  
 ' perform'd by themselves. Why,  
 ' *says he*, do I know, without being  
 ' taught that there is in the Sky,  
 ' at a prodigious Distance from me,  
 ' a Sun and Stars : and why have  
 ' I occasion for a Master to learn  
 ' where Motion begins ? — When  
 ' I move my Finger, I know not  
 ' how what I perform within my  
 ' self, is perform'd. We are too far  
 ' above, and cannot comprehend our  
 ' selves.

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 SECT. XLVIII.

*The SOVEREIGNTY of the SOUL over the  
 BODY principally appears in the IMAGES  
 imprinted in the BRAIN.*

**T**IS certain, we cannot suffici-  
 -ently admire either the abso-  
 lute Power of the Soul over corpo-  
 real

real Organs which she knows not, or the continual Use it makes of them without discerning them. That Sovereignty principally appears with respect to the Images imprinted in our Brain. I know all the Bodies of the Universe that have made any Impression on my Senses for a great many Years past. I have distinct Images of them, that represent them to me, insomuch that I believe I see them, even when they exist no more. My Brain is like a Closet full of Pictures, which should move and set themselves in order at the Master's Pleasure. Painters with all their Art and Skill, never attain but an imperfect Likeness: Whereas the Pictures I have in my Head are so faithful, that 'tis by consulting them, I perceive all the Defects of those made by Painters, and correct them within my self. Now, do these Images, more like their Original than the Master-Pieces of the Art of Painting, imprint themselves, in my Head without any Art? Is my Brain a Book, all the Characters of which have ranged themselves, of their own accord? If there

be

be any Art in the Case, it does not proceed from me: For I find within me that Collection of Images, without having ever so much as thought either to imprint them, or set them in order. Moreover, all these Images either appear, or retire as I please, without any Confusion: I call them back: And they return. I dismiss them: and they sink, I know not where. They either assemble, or separate, as I please: But I neither know where they lie, nor what they are. Nevertheless I find them always ready. The Agitation of so many Images, Old and New, that revive, join, or separate, never disturbs a certain Order that's amongst them. If some of them do not appear at the first Summons: At least I'm certain they are not far off. They may lurk in some deep Corner: But I am not totally ignorant of them, as I am of Things I never knew; for, on the contrary, I know confusedly what I look for. If any other Image offers itself in the Room of that I call'd for, I immediately dismiss it, telling it: 'Tis not you I have occasion for. But then

then where lie Objects half-forgotten? They are present within me, since I look for them there, and find them at last. Again, in what manner are they there, since I look for them a long while in Vain? What becomes of them? ' I am no more, says St. *Austin*, what I was, when I had the Thoughts I cannot find again. I know not continues that Father, either how it comes to pass, that I am thus withdrawn from and deprived of my self; or how I am afterwards brought back, and restor'd to my self. I am, as it were, another Man, and carried to another Place, when I look for, and do not find, what I had trusted to my Memory. In such a Case, we cannot reach, and are, in a manner, Strangers remote from our selves. Nor do we come at us, but when we find what we are in quest of. But where is it we look for, but within us? Or what is it we look for, but Our selves? — So unfathomable a Difficulty astonishes us! I distinctly remember I have known, what I do not know at present.

## The EXISTENCE

sent. I remember my very Oblivion. I call to Mind the Pictures or Images of every Person, in every Period of Life wherein I have seen them formerly: So that the same Person passes several Times in my Head. At first, I see one a Child, then a Young, and afterwards an Old Man. I place Wrinkles in the same Face, in which, on the other side, I see the tender Graces of Infancy. I join what subsists no more with what is still, without confounding these Extremes. I preserve I know not what, which, by Turns, is all that I have seen since I came into the World. Out of this unknown Store come all the Perfumes, Harmonies, Tastes, Degrees, and Mixtures of Colours; in short; all the Figures that have pass'd thro' my Senses, and which they have trusted to my Brain. I revive when I please, the Joy I felt Thirty Years ago. It returns: But sometimes it is not the same it was formerly, and appears without rejoicing me. I remember I have been well pleased: And yet am not so while I have that Remembrance. On the other hand, I renew past Sorrows and Troubles.

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They are present : For I distinctly perceive them such as they were formerly, and not the least Part of their Bitterness, and lively Sense, escapes my Memory : But yet they are no more the same ; they are dull'd, and neither trouble nor disquiet me. I perceive all their Severity without feeling it : Or if I feel it, 'tis only by Representation, which turns a former Smart and racking Pain, into a Kind of Sport and Diversion ; for the Image of past Sorrows rejoices me. It is the same with Pleasures : A virtuous Mind is afflicted by the Memory of its Disorderly Unlawful Enjoyments. They are present : For they appear with all their softest and most flattering Attendants ; but they are no more themselves, and such Joys return only to make us uneasy.

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S E C T. XLXI.

*Two WONDERS of the MEMORY and  
BRAIN.*

**H**ERE therefore are two Wonders equally incomprehensible : The first, that my Brain is a Kind  
of

of Book, that contains a Number almost infinite of Images, and Characters ranged in an Order I did not contrive, and of which Chance could not be the Author. For I never had the least Thought either of Writing any Thing in my Brain, or to place in any Order the Images and Characters I imprinted in it. I had no other Thought but only to see the Objects that struck my Senses. Neither could Chance make so marvellous a Book : Even all the Art of Man is too imperfect ever to reach so high a Perfection, Therefore what Hand had the Skill to compose it ?

The second Wonder I find in my Brain, is to see that my Mind reads with so much Ease, whatever it pleases, in that inward Book ; and reads even Characters it does not know. I never saw the Traces or Figures imprinted in my Brain, and even the Substance of my Brain is self, which is like the Paper of that Book, is altogether unknown to me. All those numberless Characters transpose themselves, and afterwards resume their Rank and Place to obey  
my

my Command. I have, as it were, a divine Power over a Work I am unacquainted with, and which is incapable of Knowledge, That which understands nothing, understands my Thought and performs it instantly. The Thought of Man has no Power over Bodies: I am sensible of it by running over all Nature. There is but one single Body which my bare Will moves, as if it were a DEITY; and even moves the most subtle and nicest Springs of it, without knowing them. Now, who is it that united my Will to this Body, and gave it so much Power over it?

### SECT. L.

*The MIND of Man is mix'd with GREATNESS and WEAKNESS. Its GREATNESS consists in Two Things.*

*First, The Mind has the IDEA of the INFINITE.*

**L**ET us conclude these Observations by a short Reflection on the Essence of our Mind; in which I find an incomprehensible Mixture of Greatness and Weakness. Its Greatness

ness is real : For it brings together the past and the present, without Confusion ; and by its Reasoning penetrates into Futurity. It has the Idea both of Bodies, and Spirits. Nay it has the Idea of the Infinite : For it supposes and affirms all that belongs to it, and rejects and denies all that is not proper to it. If you say that the Infinite is triangular ; the Mind will answer without Hesitation, that what has no Bounds can have no Figure. If you desire it to assign the First of the Units that make up an Infinite Number ; it will readily answer, That there can be no Beginning, End, or Number in the Infinite ; because if one could find either a First or Last Unit in it, one might add some other Unit to that, and consequently encrease the Number. Now a Number cannot be infinite, when it is capable of some Addition, and when a Limit may be assign'd to it, on the Side where it may receive an Increase.

SECT. LI.

*The MIND knows the FINITE only by the IDEA of the INFINITE.*

**T**IS even in the Infinite that my Mind knows the Finite. When we say a Man is sick, we mean a Man that has no Health; and when we call a Man weak, we mean one that has no Strength. We know Sickness, which is a Privation of Health, no other Way but by representing to us Health it self as a real Good, of which such a Man is depriv'd; and, in like manner, we only know Weakness, by representing to us Strength as a real Advantage, which such a Man is not Master of. We know Darkeness, which is nothing real, only by denying, and consequently by conceiving Day-Light, which is most real, and most positive. In like manner we know the Finite only by assigning it a Bound, which is a meer Negation of a greater Extent; and consequently only the Privation of the Infinite. Now a Man could never represent to himself the

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Privation

Privation of the Infinite, unless he conceiv'd the Infinite itself: Just as he could not have a Notion of Sickness, unless he had an Idea of Health, of which it is only a Privation. Now, whence comes that Idea of the Infinite in us?

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### SECT. LII.

Secondly, *The IDEAS of the Mind are*  
**UNIVERSAL, ETERNAL, and IMMUTABLE.**

**O**H! How great is the Mind of Man! He carries within him wherewithal to astonish, and infinitely to surpass himself: Since his Ideas are universal, eternal, and immutable. They are universal: For when I say, it is impossible to be and not to be; the Whole is bigger than a Part of it; a Line perfectly circular has no Strait Parts; between Two Points given the Strait Line is the shortest; the Center of a Perfect Circle is equally distant from all the Points of the Circumference; an Equilateral Triangle has no Obtuse, or Right Angle: All these Truths admit of

no

no Exception. There never can be any Being, Line, Circle, or Triangle, but according to these Rules. These Axioms are of all Times, or to speak more properly, they exist before all Time, and will ever remain after any comprehensible Duration. Let the Universe be turn'd topsy turvy, destroy'd, and annihilated; and even let there be no Mind to reason about Beings, Lines, Circles, and Triangles: Yet it will ever be equally true in it self, that the same Thing cannot at once, be and not be; that a Perfect Circle can have no Part of a Strait Line; that the Center of a Perfect Circle cannot be nearer one Side of the Circumference than the other. Men may, indeed, not think actually on these Truths: and it might even happen, that there should be neither Universe, nor any Mind capable to reflect on these Truths: But nevertheless they are still constant and certain in themselves, altho' no Mind should be acquainted with them; just as the Rays of the Sun would not cease being real, altho' all Men should be blind, and no Body have Eyes to be sensible of their Light. By as-

firming that Two and Two make Four, lays St. *Austin*\*, a Man is not only certain that he speaks Truth, but he cannot doubt that such a Proposition was ever equally true, and must be so eternally. These Ideas we carry within our selves have no Bounds, and cannot admit of any. It cannot be said, that what I have affirmed about the Center of perfect Circles, is true only in relation to a certain Number of Circles: For that Proposition is true, thro' evident Necessity, with respect to all Circles *ad Infinitum*. These unbounded Ideas can never be chang'd, alter'd, impair'd, or defaced in us: For they make up the very Essence of our Reason. Whatever Effort a Man may make in his own-Mind, yet it is impossible for him ever to entertain a serious Doubt about the Truths which those Ideas clearly represent to us. For Instance, I never can seriously call in Question, whether the Whole is bigger than one of its Parts; or whether the Center of a Perfect Circle is equally distant from all the Points of the Circumference. The Idea of the Infinite is in me like that

of

\* *Lib. 2.*  
*de Lib. arb.*



of Numbers, Lines, Circles, & Whole, and a Part. The changing our Ideas, would be, in Effect, the annihilating Reason it self. Let us judge and make an Estimate of our Greatness, by the immutable infinite Stamp within us, and which can never be defaced from our Minds. But lest such a real Greatness should dazzle, and betray us, by flattering our Vanity, lets hasten to cast our Eyes on our Weakness.

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S E C T. LIII.

## WEAKNESS of MAN'S MIND.

**T**HAT same Mind that incessantly sees the Infinite; and, through the Rule of the Infinite, all Finite Things; is likewise infinitely ignorant of all the Objects that surround it. It is altogether ignorant of it self; and gropes about, in an Abyss of Darkness. It neither knows what it is, nor how it is united with a Body; nor which Way it has so much Command over all the Springs of that Body, which it knows not. It is ignorant of its own Thoughts and Wills. It knows not,

with Certainty, either what it believes, or wills. It often fancies to believe and will, what it neither believes nor wills. It is liable to mistake, and its greatest Excellence is to acknowledge it. To the Error of its Thoughts, it adds the Disorder and Irregularity of its Will and Desires; so that it is forc'd to groan, in the Consciousness and Experience of its Corruption. Such is the Mind of Man, weak, uncertain, flinted, full of Errors. Now, who is it that put the Idea of the Infinite, that is to say of Perfection, in a Subject so flinted, and so full of Imperfection? Did it give it self so sublime, and so pure an Idea, which is it self a Kind of Infinite in Imagery? What Finite Being distinct from it, was able to give it what bears no Proportion with what is Limited within any Bounds? Let us suppose the Mind of Man to be like a Looking-Glass, wherein the Images of all the Neighbouring Bodies imprint themselves: Now what Being was able to stamp within us the Image of the Infinite, if the Infinite never existed? Who can put in a Looking Glass the Image of a Chimerical

Chimerical Object, which is not in Being, and which was never placed against the Glass? This Image of the Infinite is not a confused Collection of Finite Objects, which the Mind may mistake for a true Infinite. 'Tis the True Infinite of which we have the Thought and Idea. We know it so well, that we exactly distinguish it from whatever it is not; and that no Subtilty can palm upon us any other Object in its Room. We are so well acquainted with it, that we reject from it any Propriety that denotes the least Bound or Limit. In short, we know it so well, that 'tis in it alone we know all the rest, just as we know the Night by the Day; Sicknes by Health. Now, once more, whence comes so great an Image? Does it proceed from Nothing? Can a Stinted Limited Being imagine and invent the Infinite, if there be no Infinite at all? Our weak and short-sighted Mind cannot of it self form that Image, which, at this rate, should have no Author. None of the Outward Objects can

give us that Image: For they can only give us the Image of what they are, and they are limited and imperfect. Therefore from whence shall we derive that distinct Image which is unlike any Thing within us, and all we know here below, without us? Whence does it proceed? Where is that Infinite we cannot comprehend, because it is really Infinite: And which nevertheless we cannot mistake, because we distinguish it from any Thing that's inferior to it? Sure it must be somewhere, otherwise how could it imprint it self in our Minds?

## SECT. LIV.

*The IDEAS of Man are the immutable  
RULES of his JUDGMENT.*

**B**UT besides the Idea of the Infinite, I have yet universal and immutable Notions, which are the Rule and Standard of all my Judgments; insomuch, that I cannot judge of any Thing but by consulting them; nor am I free to judge contrary to what they represent to me.

me. My Thoughts are so far from being able to correct, or form that Rule, that they are themselves corrected, in spite of my self, by that Superior Rule; and invincibly subjected to its Decision. Whatever Effort my Mind can make, I can never be brought, as I observ'd before, to entertain a Doubt, whether Two and Two make Four; whether the Whole is bigger than one of its Parts; or whether the Center of a perfect Circle be equally distant from all the Points of the Circumference. I am not free to deny those Propositions; and if I happen to deny those Truths, or others much like them, there is in me something above my self, which forces me to return to the Rule. That fix'd and immutable Rule, is so inward and intimate, That I am tempted to take it for my self: But it is above me, since it corrects, and rectifies me; gives me a Distrust of my self, and makes me sensible of my Impotency. 'Tis something that inspires me every moment, provided I hearken to it, and I never err or mistake except  
when

when I am not attentive to it. What inspires me would for ever preserve me from Error, if I were docile, and acted without Precipitation: For that inward Inspiration would teach me to judge aright of Things within my reach, and about which I have occasion to form a Judgment. As for others, it would teach me, not to judge of them at all; which second Lesson is no less important than the first. That inward Rule is what I call *My Reason*: But I speak of *My Reason* without penetrating into the Extent of those Words, as I speak of *NATURE* and *INSTINCT*, without knowing what those Expressions mean.

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## SECT. LV.

*What MAN'S REASON is.*

**T**IS certain my Reason is within me; For I must continually recollect my self to find it. But the superior Reason that corrects me upon occasion, and which I consult, is none of mine, nor is it Part of my self. That Rule is perfect

fect and immutable ; whereas I am changeable and imperfect. When I err, it preserves its Rectitude: When I am undeceived, it is not set right; for it never was otherwise; and still keeping to Truth has the Authority to call, and bring me back to it. 'Tis an inward Master that makes me either be silent, or speak; believe, or doubt; acknowledge my Errors, or confirm my judgments. I am instructed by hearkening to it; whereas I err and go astray, when I hearken to my self. That Master is every where, and his Voice is heard, from one End of the Universe to the other, by all Men as well as me. Whilst he corrects and rectifies me in *France*, he corrects and sets right other Men in *China*, *Japan*, *Mexico*, and in *Peru*, by the same Principles.

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#### SECT. LVI.

REASON is the SAME in all MEN, of all AGES and COUNTRIES.

**T**WO Men who never saw, or heard of one another, and who

who never entertain'd any Correspondence with any other Man that could give them common Notions, yet speak, at two Extremities of the Earth, about a certain Number of Truths, as if they were in Concert. 'Tis infallibly known before Hand in one Hemisphere, what will be answer'd in the other upon these Truths. Men of all Countries and of all Ages, whatever their Education may have been, find themselves invincibly subjected and obliged to think, and speak in the same manner. The Master who incessantly teaches us, makes all of us think the same Way. Whenever we hastily judge, without hearkening to his Voice, in Diffidence of our selves, we think, and utter Dreams full of Extravagance. Thus what appears most to be Part of our selves, and our very Essence, I mean our Reason, is least our own, and what on the contrary, ought to be accounted most borrow'd. We continually receive a Reason superior to us, as we incessantly breath the Air, which is a foreign Body; or as we incessantly see all the Objects near us by the Light  
of



of the Sun, whose Rays are Bodies foreign to our Eyes. That superior Reason over-rules and governs, to a certain Degree, with an absolute Power, all Men, even the least rational, and makes them all ever agree, in spite of themselves, upon those Points. 'Tis she that makes a Savage in *Canada* think about a great many Things, just as the *Greek* and *Roman* Philosophers did. 'Tis she that made the *Chinese* Geometricians find out much the same Truths with the *Europeans*, whilst those Nations so very remote, were unknown one to another. 'Tis she that makes People in *Japan* conclude as in *France*, that Two and Two make Four; nor is it apprehended, that any Nation shall ever change their Opinion about it. 'Tis she that makes Men think now-a-days about certain Points, just as Men thought about the same Four Thousand Years ago. 'Tis she that gives uniform Thoughts to the most jealous and jarring Men, and the most irreconcilable among themselves. 'Tis by Her that Men of all Ages and Countries, are, as it were, chain'd about

about an unmoveable Center, and held in the Bonds of Amity by certain invariable Rules, call'd FIRST PRINCIPLES, notwithstanding the Infinite Variations of Opinions, that arise in them from their Passions, Avocations, and Caprices, which ever-rule all their other less-clear Judgments. 'Tis through Her that Men, as depraved as they are, have not yet presum'd openly to bestow on VICE the Name of VIRTUE, and that they are reduced to dissemble being just, sincere, moderate, benevolent, in order to gain one another's Esteem. The most wicked and abandon'd of Men, cannot be brought to esteem what they wish they could esteem, or to despise what they wish they could despise. 'Tis not possible to force the Eternal Barrier of Truth and Justice. The inward Master, call'd Reason, intimately checks the Attempt with absolute Power, and knows how to set Bounds to the most impudent Folly of Men. Tho' Vice has for many Ages reign'd with unbridled Licentiousness, Virtue is still call'd Virtue; and the most Brutish and  
rash

rash of her Adversaries cannot yet  
 deprive her of her Name. Hence  
 it is that Vice, tho' triumphant in  
 the World, is still obliged to dis-  
 guise it self, under the Mask of  
 Hypocrisy, or sham Honesty, to  
 gain the Esteem it has not the  
 Confidence to expect, if it should  
 go bare-faced. Thus notwithstanding  
 its Impudence, it pays a forced  
 Homage to Virtue, by endeavouring  
 to adorn it self with her fairest  
 Outside, in order to receive the Ho-  
 nour and Respect she commands  
 from Men. 'Tis true Virtuous Men  
 are expos'd to Censure; and they  
 are, indeed, ever reprehensible in  
 this Life, through their natural Im-  
 perfections; But yet the most Vici-  
 ous cannot totally efface, in them-  
 selves the Idea of true Virtue. There  
 never was yet any Man upon Earth,  
 that could prevail either with others,  
 or himself, to allow, as a receiv'd  
 Maxim, that to be knavish, passi-  
 onate, and mischievous, is more ho-  
 nourable than to be honest, mode-  
 rate, good-natured, and benevolent.

THE END OF THE FIRST VOLUME.  
 LONDON, Printed by J. B. 1711.  
 SECT.

## S E C T. LVII.

REASON *in Man* is INDEPENDENT of  
and above him.

**I** Have already evinc'd that the inward and universal Master, at all Times, and in all Places, speaks the same Truths. We are not that Master: Tho' 'tis true, we often speak, without, and higher than him: But then we mistake, stutter, and do not so much as understand our selves. We are even afraid of being made sensible of our Mistakes, and we shut up our Ears, lest we should be humbled by his Corrections. Certainly the Man who is apprehensive of being corrected and reproved by that uncorruptible Reason, and ever goes astray when he does not follow it, is not that perfect, universal, and immutable Reason, that corrects him, in spite of himself. In all Things we find, as it were, two Principles within us: The one gives: The other receives; the one fails, or is defective: The other makes up; the one mistakes:

The

The other rectifies; the one goes awry, through his Inclination, the other sets him right. 'Twas the mistaken, and ill-understood Experience of this, that led the *Marcionites* and *Manicheans* into Error. Every Man is conscious within himself of a limited and inferior Reason, that goes astray and errs, as soon as it gets loose from an entire Subordination, and which mends its Error no other way, but by returning under the Yoke of another superior, universal, and immutable Reason. Thus every Thing within us argues an inferior, limited, communicated, and borrow'd Reason, that wants every Moment to be rectified by another. All Men are rational by means of the same Reason that communicates it self to them, according to various Degrees. There is a certain Number of Wise Men; But the Wisdom from which they draw theirs, as from an inexhaustible Source, and which makes them what they are, is but ONE.

## SECT. LVIII.

*'Tis the PRIMITIVE Truth, that lights all  
Minds, by communicating it self to them.*

**W**HERE is that Wisdom? Where is that Reason, at once both common and superior to all Limited and Imperfect Reasons of Mankind? Where is that Oracle, which is never silent, and against which all the vain Prejudices of Men cannot prevail? Where is that Reason which we have ever Occasion to consult, and which prevents us to create in us the Desire of hearing its Voiee? Where is that lively Light *which lighteth every Man that cometh into the World?* Where is that pure and soft Light, which not only lights those Eyes that are open, but which opens Eyes that are shut; cures sore Eyes; gives Eyes to those that have none to see it; in short, which raises the Desire of being lighted by it, and gains even their Love, who were afraid to see it? Every Eye sees it; nor would it see any Thing, unless it saw it; since 'tis by that Light, and  
its

its pure Rays that the Eye sees every Thing. As the sensibler Sun in the Firmament lights all Bodies; so the Sun of Intelligence lights all Minds. The Substance of a Man's Eye is not the Light: On the contrary the Eye borrows, every Moment, the Light from the Rays of the Sun. Just in the same manner, my Mind is not the Primitive Reason, or Universal and Immutable Truth; but only the Organ thro' which that Original Light passes, and which is lighted by it. There is a Sun of Spirits that lights them far better than the visible Sun lights Bodies. This Sun of Spirits gives us, at once, both its Light, and the Love of it, in order to seek it. That Sun of Truth leaves no manner of Darkness; and shines at the same Time in the Two Hemispheres. It lights us as much by Night, as by Day; nor does it spread its Rays outwardly; but inhabits in every one of us. A Man can never deprive another Man of its Beams. One sees it equally, in whatever Corner of the Universe he may lurk. A Man never needs say to another; *Step aside, to let me see that Sun*: You

## THE EXISTENCE

*rob me of its Rays; you take away my Share of it. That Sun never sets: Nor suffers any Cloud, but such as are raised by our Passions., 'Tis a Day without Shadow. It lights the Savages even in the deepest and darkest Caves; none but Sore Eyes wink against its Light; nor is there indeed any Man so distemper'd and so blind, but who still walks by the Glimpse of some dusky Light he retains from that inward Sun of Consciences. That universal Light discovers and represents all Objects to our Minds; nor can we judge of any Thing but by it; just as we cannot discern any Body but by the Rays of the Sun.*

## SECT. LIX.

*'Tis by the LIGHT of PRIMITIVE TRUTH, a Man judges whether what one says to him, be true or false.*

**M**EN may speak and discourse to us in order to instruct us. But we cannot believe them any farther, than we find a certain Conformity or Agreement between what they



they say, and what the inward Master says. After they have exhausted all their Arguments, we must still return, and hearken to him, for a final Decision. If a Man should tell us, that a Part equals the Whole of which it is a Part, we should not be able to forbear laughing, and instead of persuading us, he would make himself ridiculous to us. 'Tis in the very Bottom of our selves, by consulting the Inward Master, that we must find the Truths that are taught us, that is, which are outwardly proposed to us. Thus, properly speaking, there is but one True Master, who teaches all, and without whom one learns nothing. Other Masters always refer and bring us back to that inward School where he alone speaks. 'Tis there we receive what we have not; 'tis there we learn what we were ignorant of; and find what we had lost by Oblivion. 'Tis in the intimate Bottom of our selves, he keeps in store for us certain Truths, that lie, as it were, bury'd, but which revive upon Occasion; and 'tis there, in short, that we reject the Falshood

we

we had embraced. Far from judging that Master, 'tis by him alone we are judg'd peremptorily in all Things. He is a Judge disinterested, impartial, and superior to us. We may, indeed, refuse hearing him, and raise a Din to to stun our Ears: But when we hear him 'tis not in our Power to contradict him. Nothing is more unlike Man than that invisible Master that instructs and judges him with so much Severity, Uprightness, and Perfection. Thus our limited, uncertain, defective, fallible Reason, is but a feeble and momentaneous Inspiration of a primitive, supreme, and immutable Reason, which communicates it self with Measure, to all Intelligent Beings.

S E C T. LX:

*The SUPERIOR REASON that resides in Man is GOD HIMSELF; and whatever has been above discover'd to be in Man, are evident Footsteps of the DEITY.*

**I**T cannot be said that Man gives himself the Thoughts he had not before; much less can it be said, that he receives them from other Men: Since 'tis certain, he neither does, nor can admit any Thing from without, unless he finds it in his own Bottom, by consulting within him the Principles of Reason, in order to examine whether what he is told, is agreeable or repugnant to them. Therefore there is an inward School, wherein Man receives what he neither can give himself, nor expect from other Men, who live upon Trust as well as himself. Here then are Two Reasons I find within me; one of which is my self, the other is above me. That which is my self is very imperfect, prejudiced, liable to Error, changeable, head-strong, ignorant, and limited; in short, it possesses nothing but what is borrow'd.

The other is common to all Men, and superior to them: It is perfect, eternal, immutable, ever ready to communicate it self in all Places, and to rectify all Minds that err and mistake ; in short, incapable of ever being either exhausted or divided, altho' it communicates it self to all who desire it. Where is that perfect Reason, which is so near me, and yet so different from me? Where is it? Sure it must be something real; for Nothing or Nought cannot either be perfect, or make perfect imperfect Natures. Where is that supreme Reason? Is it not the very GOD I look for?

## SECT. LXI.

*New sensible* NOTICES of the DEITY in  
MAN, drawn from the Knowledge he has  
of UNITY.

**I** Still find other Traces, or Notices of the DEITY within me: Here's a very sensible one. I am acquainted with prodigious Numbers, with the Relations that are between them; Now, how come I by that  
L 4 Knowledge?

Knowledge? It is so very distinct, that I cannot seriously doubt of it; and so, immediately, without the least Hesitation, I rectify any Man that does not follow it in Computation. If a Man says 17 and 3 make 22, I presently tell him 17 and 3 make but 20; and he is immediately convinc'd by his own Light, and acquiesces in my Correction. The same Master, who speaks within me to correct him, speaks at the same Time within him, to bid him acquiesce. These are not Two Masters that have agreed to make us agree: 'Tis something indivisible, eternal, immutable, that speaks at the same Time, with an invincible Perswasion in us both. Once more, how come I by so just a Notion of Numbers? All Numbers are but repeated Units. Every Number is but a Compound, or a Repetition of Units. The Number of Two for Instance, is but Two Units; the Number of Four is reducible to *One* repeated Four Times. Therefore we cannot conceive any Number without conceiving UNITY, which is the essential Foundation of any possible Number;

*S. Aug. l.  
2 de Lib.  
Arb.*

Number; Nor can we conceive any Repetition of Units, without conceiving Unity it self, which is its Basis.

But which way can I know any real Unit? I never saw, nor so much as imagin'd any by the Report of my Senses. Let me take, for instance, the most subtle Atom: It must have a Figure, Length, Breadth, and Depth; a Top and a Bottom; a Left and a Right Side; And again, the Top is not the Bottom, nor one Side, the Other. Therefore this Atom is not truly One; for it consists of Parts. Now a Compound is a real Number, and a Multitude of Beings. 'Tis not a real Unit; but a Collection of Beings, one of which is not the other. I therefore never learnt by my Eyes, my Ears, my Hands, nor even by my Imagination, that there is in Nature any real *Unity*; on the Contrary, neither my Senses, nor my Imagination, ever presented to me any Thing but what is a Compound, a real Number or a Multitude. All Unity continually escapes me; it flies me, as it were by a Kind of  
 Incantment.

Inchantment. Since I look for it in so many Divisions of an Atom, I certainly have a distinct Idea of it; and 'tis only by its simple and clear Idea, that I arrive, by the Repetition of it, at the Knowledge of so many other Numbers. But since it escapes me in all the Divisions of the Bodies of Nature, it clearly follows that I never came by the Knowledge of it, through the Canal of my Senses and Imagination. Here therefore is an Idea which is in me independently from the Senses, Imagination, and Impressions of Bodies.

Moreover, altho' I would not frankly acknowledge that I have a clear Idea of Unity, which is the Foundation of all Numbers, because they are but Repetitions, or Collections of Units: I must, at least, be forc'd to own, that I know a great many Numbers with their Proprieties, and Relations. I know, for Instance, how much make 900000000 join'd with 800000000 of another Sum. I make no Mistake in it; and I should, with Certainty, immediatly rectify any  
Man

Man that should. Nevertheless, neither my Senses, nor my Imagination were ever able to represent to me distinctly all those Millions put together. Nor would the Image they should represent to me, be more like Seventeen Hundred Millions, than a far inferior Number. Therefore, how came I by so distinct an Idea of Numbers, which I never could either feel, or imagine? These Ideas independent upon Bodies, can neither be corporeal, nor admitted in a Corporeal Subject. They discover to me the Nature of my Soul, which admits what's incorporeal and receives it within it self, in an incorporeal Manner. Now, how came I by so incorporeal an Idea of Bodies themselves? I cannot by my own Nature carry it within me: Since what in me knows Bodies is incorporeal; and since it knows them, without receiving that Knowledge through the Canal of Corporeal Organs, such as the Senses and Imagination. What thinks in me must be as it were, a Nothing of Corporeal Nature. How was I able to know Beings that



that have by Nature no relation with my Thinking Being? Certainly, a Being superior to those Two Natures so very different, and which comprehends them both in its Infinity, must have join'd them in my Soul; and given me an Idea of a Nature intirely different from that which thinks in me.

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## S E C T. LXII

*The IDEA of the UNITY proves that there are IMMATERIAL SUBSTANCES; and that there is a BEING PERFECTLY ONE, who is GOD.*

**A**S for Units, some, perhaps, will say, that I do not know them by the Bodies, but only by the Spirits; and therefore that my Mind being one, and truly known to me, tis by it, and not by the Bodies, I have the Idea of Unity. But to this I answer,

It will, at least, follow from thence, *First, That* that I know Substances that have *there are* no manner of Extension, or Divisibility, and which are present. Here *immaterial Sub-* are already, Beings purely incorpo-  
real,

real, in the Number of which I ought to place my Soul. Now, who is it that has united it to my Body? This Soul of mine is not an infinite Being; it has not been always; and it thinks within certain Bounds: Now, again, who makes it know Bodies so different from it? Who gives it so great a Command over a certain Body; and who gives reciprocally to that Body so great a Command over the Soul? Moreover, which way do I know whether this Thinking Soul, is really one, or whether it has Parts? I do not see this Soul. Now, will any Body say that 'tis in so invisible, and so impenetrable a Thing, that I clearly see what Unity is? I am so far from learning by my Soul what the being One is, that, on the contrary, 'tis by the clear Idea I have already of Unity, that I examine whether my Soul be one, or divisible.

Secondly, Add to this, that I have within me a clear Idea of a perfect Unity, which is far above that I may find in my Soul. The latter is often conscious that she is divided between Two contrary Opinions, Inclinations,

*That there  
is a Being  
perfectly  
one, viz.  
GOD  
ALONE.*

clinations, and Habits. Now, does not this Division which I find within my self shew and denote a kind of Multiplicity, and Composition of Parts? Besides, the Soul has, at least, a successive Composition of Thoughts, one of which is most different and distinct from another. I conceive an Unity infinitely more One, if I may so speak. I conceive a Being who never changes his Thoughts, who always thinks all Things at once, and in which no Composition, even successive, can be found. Undoubtedly 'tis the Idea of the perfect and supreme Unity, that makes me so inquisitive after some Unity in Spirits, and even in Bodies. This Idea ever present within me, is innate or inborn with me; it is the perfect Model by which I seek every where some imperfect Copy of the Unity. This Idea of what is one, simple, and indivisible by Excellence, can be no other than the Idea of God. I therefore know God with such Clearness and Evidence, that 'tis by knowing him I seek in all Creatures, and in my self, some Image and Likeness of his Unity.

Unity. The Bodies have, as it were, some Mark or Print of that Unity, which still flies away in the Division of its Parts; and the Spirits have a greater Likeness, of it, altho' they have a successive Composition of Thoughts.

## S E C T. LXIII.

DEPENDANCE *and* INDEPENDANCE of MAN.  
*His DEPENDANCE proves the EXISTENCE*  
*of his CREATOR.*

**B**UT here's another Mystery, which I carry within me, and which makes me incomprehensible to my self; *viz.* That, on the one Hand, I am Free, and on the other, Dependent. Let us examine these Two Things, and see whether 'tis possible to reconcile them.

I am a dependent Being. Independency is the supreme Perfection. To be by one's self, is to carry within one's self, the Source or Spring of one's own Being; or which is the same, 'tis to borrow nothing from any Being different from one's self. Suppose a Being  
that

that has all the Perfections you  
can imagine; but which has a  
borrow'd and Dependent Being;  
and you'll find him to be less  
perfect than another Being in which  
you'd suppose but bare Independen-  
ce. For there is no Comparison  
to be made between a Being that  
exists by himself, and a Being who  
is nothing of his own, nothing  
but what is precarious and borrow'd,  
and who is in himself, as it were,  
only upon Trust.

This Consideration brings me to  
acknowledge the Imperfection of  
that I call my Soul. If she exist-  
ed by herself, it would borrow no-  
thing from another; she would not  
want either to be instructed in her  
ignorances, or to be rectify'd in  
her Errors. Nothing could reclaim  
her from her Vices, or inspire her  
with Virtue; for nothing would be  
able to render her Will better  
than it should have been at first.  
This Soul would ever possess  
whatever she should be capable to  
joy; nor could she ever receive  
any Addition from Without. On  
the other hand, it is no less cer-

M

tain,

tain, that she could not lose any thing: For what is or exists by its self, is always necessarily whatever it is. Therefore my Soul could not fall into Ignorance, Error, or Vice; or suffer any Diminution of Good Will: Nor could she, on the other hand, instruct, or correct her self, or become better than she is. Now, I experience the contrary of all these. For I forget, mistake, err, go astray; lose the Sight of Truth, and the Love of Virtue; I corrupt, I diminish. On the other hand, I improve and increase by acquiring Wisdom, and Good Will, which I never had. This intimate Experience convinces me, that my Soul is not a Being existing by it self, and independent; that is necessary, and immutable in all it possesses, and enjoys. Now, whence proceeds this Augmentation and Improvement of my self? Who is it that can enlarge and perfect my Being, by making me better, and consequently greater than I was?

SECT.

S E C T. LXIV.

GOOD WILL cannot proceed but from a  
SUPERIOR BEING.

**T**HE Will, or Faculty of willing, is undoubtedly a Degree of Being, and of Good, or Perfection: But Good Will, Benevolence, or Desire of Good, is another Degree of Superior Good. For one may misuse Will, in order to wish ill, cheat, hurt, or do Injustice: Whereas Good Will is the Good or Right Use of Will it self, which cannot but be good. Good Will is therefore what is most precious in Man. 'Tis that which sets a Value upon all the rest. 'Tis as it were, *The whole Man: Hoc enim omnis Homo;* †. Eccle 13.

I have already shewn, that my Will is not by it self, since it is liable to lose, and receive Degrees of Good, or Perfection; and likewise that it is a Good inferior to *Good Will*; because it is better to will Good, than barely to have a Will, susceptible both of Good and Evil. How could I be brought to believe, that I, a Weak, Imperfect,

M 2 Borrow'd,

## THE EXISTENCE

Borrow'd, precarious and Dependent Being, bestow on my self the Highest Degree of Perfection, while it is visible, and evident, that I derive the far Interior Degree of Perfection from a First Being? Can I imagine that God gives me the Lesser Good, and that I give my self the Greater without Him? How should I come by that high Degree of Perfection, in order to give it my self? Should I have it from Nothing, which is all my own Stock? Shall I say, that other Spirits, much like, or equal to mine, give it me? But since those limited and dependent Beings like my self, cannot give themselves any thing, no more than I can, much less can they bestow any thing upon another. For as they do not exist by themselves, so they have not by themselves any True Power, either over me, or over Things that are imperfect in me; or over themselves. Wherefore, without stopping with them, we must go up higher, in order to find out a First, Teeming, and most Powerful Cause, that is able to bestow on my Soul the Good Will she has not.

SECT.



SECT. LXV.

*As a SUPERIOR BEING is the Cause of all the MODIFICATIONS of CREATURES, so 'tis impossible for Man's Will, to will Good, by it self, or of its own accord.*

**L**ET us still add another Reflection. That First Being is the Cause of all the Modifications of His Creatures. *The Operation follows the Being*, as the Philosophers are us'd to speak. A Being that is dependent in the Essence of His Being, cannot but be dependent in all his Operations: For the Accessory follows the Principal. Therefore, the Author of the Essence of the Being, is also the Author of all the Modifications, or Modes of Being of Creatures. Thus GOD is the Real and Immediate Cause of all the Configurations, Combinations, and Motions, of all the Bodies of the Universe. 'Tis by Means, or upon Occasion, of a Body He has set in Motion, that He moves another. 'Tis He Who created every thing, and Who does every thing in His Creatures, or Works. Now *Volution*, is the Modification of the Will

or willing Faculty of the Soul, just as Motion is the Modification of Bodies. Shall we affirm that God is the real, immediate and total Cause of the Motion of all Bodies, and that he is not equally the real and immediate Cause of the Good-Will of Men's Wills? Will this Modification, the most excellent of all, be the only one not made by God in his own Work, and which the Work bestows on it self independently? Who can entertain such a Thought? Therefore my Good-Will which I had not Yesterday, and which I have to Day, is not a Thing I bestow upon my self; but must come from Him who gave me both the *Will* and the *Being*.

As *to will* is a greater Perfection than barely *to be*: So *to will Good*, is more perfect than *to will*. The Step from Power, to a Virtuous Act, is the greatest Perfection in Man. Power is only a Ballance, or Poise between Virtue and Vice, or a Suspension between Good and Evil. The Passage, or Step to the Act, is a Decision or Determination for the Good, and consequent by the Superior Good.

Good. The Power susceptible of Good and Evil comes from God: Which we have fully evinc'd. Now, shall we affirm, That the decisive Stroke, that determines to the greater Good, either is not at all, or is less owing to Him? All this evidently proves what the Apostle says, *viz.* That God works both to will and to do, of his good Pleasure. *Philip. 2. 13.* Here's Man's Dependence: Let us look for his Liberty.

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SECT. LXVI.

Of MAN'S LIBERTY.

**I** Am free, nor can I doubt of it. I am intimately and invincibly convinc'd, that I can either will, or not will: And that there is in me a Choice not only between Willing and not Willing: But also between divers Wills, about the Variety of Objects that present themselves. I am sensible, as the Scripture says, That I am in the Hand of my Council: Which alone suffices to shew me, that my Soul is not

*Ecc. 15.*

*14.*

Corporeal. All that is Body or Corporeal, does not in the least determine it self, and is, on the contrary, determin'd in all Things by Laws call'd Physical, which are necessary, invincible, and contrary to what I call Liberty. From thence I infer, that my Soul is of a Nature entirely different from that of my Body. Now, who is it that was able to join by a reciprocal Union Two such different Natures, and hold them in so just a Concert for all their respective Operations? That Tie, as we observ'd before, cannot be form'd but by a superior Being, who comprehends and unites those Two sorts of Perfections, in his own infinite Perfection.

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## SECT. XLVII.

MAN'S LIBERTY *consists in that his Will by determining, modifies it self.*

**I**T is not the same with the Modification of my Soul, which is call'd Will, and by some Philosophers *Volition*, as with the Modifications of Bodies. A Body does not in the least

least modify it self; but is modified by the sole Power of God. It does not move it self, it is moved. It does not act in any Thing: It is only acted, and actuated. Thus God is the only real and immediate Cause of all the different Modifications of Bodies. As for Spirits, the Case is different; for my Will determines it self. Now, to determine one's self to a Will, is to modify one's self, and therefore my Will modifies it self. God may prevent my Soul; But he does not give it the Will, in the same manner as he gives Motion to Bodies. If 'tis God who modifies me, I modify my self with him; and am with him a real Cause of my own Will. My Will is so much my own, that I am only to blame, if I do not Will what I ought. When I will a Thing, 'tis in my Power not to will it: And when I do not will it, 'tis likewise in my Power to will it. I neither am, nor can be compell'd in my Will; For I cannot will what I actually will, in spite of my self; since the Will I mean evidently excludes all manner of Constraint. Besides  
the

the Exemption from all Compulsion, I am likewise free from Necessity. I am conscious and sensible that I have, as it were, a two-edged Will, which, at its own Choice, may be either for the Affirmative or the Negative, the *Yes* or the *No*, and turn it self either towards an Object, or towards another. I know no other Reason or Determination of my Will, but my Will it self. I will a Thing because I am free to will it; and nothing is so much in my Power, as either to will or not to will it. Altho' my Will should not be constrain'd, yet if it were necessitated it would be as strongly and invincibly determin'd to will, as Bodies are to move. An invincible Necessity would have as much Influence over the Will with Respect to Spirits, as it has over Motion, with respect to Bodies; And, in such a Case, the Will would be no more accountable for willing, than a Body for moving. 'Tis true the Will would will what it would: But the Motion by which a Body is mov'd, is the same, as the Volition by which the willing Faculty wills.

If

If therefore Volition be necessitated as Motion, it deserves neither more nor less Praise or Blame. For tho' a necessitated Will may seem to be a Will unconstrain'd, yet it is such a Will as one cannot forbear having, and for which he that has it, is not accountable. Nor does previous Knowledge establish true Liberty: For a Will may be preceded by the Knowledge of divers Objects, and yet have no real Election or Choice. Nor is Deliberation, or the being in Suspence, any more than a vain Trifle, if I deliberate between Two Counsels when I am under an actual Impotency to follow the one, and under an actual Necessity to pursue the other. In short, there's no serious and true Choice between Two Objects, unless they be both actually ready within my Reach, so that I may either leave or take, which of the Two I please.

## S E C T. LXVIII.

*WILL may resist GRACE, and its  
LIBERTY is the Foundation of ME-  
RIT and DEMERIT.*

*Cons. Trid.  
Sess. 6*

**W**HEN therefore I say I am Free, I mean that my Will is fully in my Power, and that even God Himself leaves me at Liberty to turn it which way I please; that I am not determin'd as other Beings; and that I determine my self. I conceive that if that First Being prevents me to inspire me with a Good Will, it is still in my Power to reject his actual Inspiration, how strong soever it may be; to frustrate its Effect; and to refuse my Assent to it. I conceive likewise that when I reject his Inspiration for the Good, I have the true and actual Power not to reject it: Just as I have the actual and immediate Power to rise when I remain sitting, and to shut my Eyes, when I have them open. Objects may indeed, sollicit me, by all their Allurements and Agreeableness, to will, or desire them.



them. The Reasons for willing may present themselves to me with all their most lively and affecting Attendants; and the Supreme Being may also attract me by His most perswasive Inspirations. But yet, for all this actual Attraction of Objects, Cogency of Reasons, and even Inspiration of a Superior Being, I still remain Master of my Will, and am free either to will, or not to will.

'Tis this Exemption not only from all manner of Constraint or Compulsion, but also from all Necessity, and this Command over my own Actions, that render me inexcusable when I will Evil, and praise-worthy when I will Good. In this lies *Merit* and *Demerit*; *Praise* and *Blame*: 'Tis this that makes either Punishment or Reward just; 'tis upon this Consideration that Men exhort, rebuke, threaten, and promise. This is the Foundation of all Policy, Instruction, and Rules of Morality. The Upshot of the *Merit* and *Demerit* of humane Actions, rests upon this Basis, *That nothing is so much in the*

Aug. Lib.  
de Anab.  
Power Animab.

## THE EXISTENCE.

*Power of our Will, as our Will it self; and that we have this FREE-WILL, this, as it were, Two-Edged Faculty; and this relative Power between Two Counsels, which are immediately as it were within our Reach. 'Tis what Shepherds and Husbandmen sing in the Fields; what Merchants and Artificers suppose in their Traffick; what Actors represent in publick Shews; what Magistrates believe in their Councils; what Doctors teach in their Schools; 'tis that, in short, which no Man of Sense can seriously call in Question. That Truth, imprinted in the Bottom of our Hearts, is supposed in the Practice, even by those Philosophers who would endeavour to shake it by their empty Speculations. The intimate Evidence of that Truth is like that of the First Principles, which want no Proof; and which serve themselves as Proofs to other Truths, that are not so clear and self-evident. But, how could the First Being make a Creature who is himself the Umpire of his own Actions?*

## SECT. LXIX.

A CHARACTER of the DEITY, both in the  
DEPENDANCE and INDEPENDANCE of  
Man.

LET us now put together these two Truths equally certain. I am dependent upon a First Being even in my own Will: And nevertheless I am free. What then is this dependent Liberty? How is it possible for a Man to conceive a Free-Will, that is given by a First Being? I am free in my Will, as GOD is in His. 'Tis principally in this I am His Image, and Likeness. What a Greatness that borders upon Infinite is here! This is a Ray, of the DEITY it self. 'Tis a Kind of Divine Power I have over my Will: But I am but a bare Image of that Supreme Being so *absolutely* Free and Powerful.

The Image of the Divine Independance is not the Reality of what it represents; and *therefore* my Liberty is but a Shadow of that First Being, by whom I exist, and act. On the

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one Hand, the Power I have of willing Evil, is, indeed, rather a Weakness and Frailty of my Will, than a true Power : For 'tis only a Power to fall, to degrade my self, and to diminish my Degree of Perfection, and Being. On the other Hand, the Power I have to will Good, is not an Absolute Power, since I have it not of my self. Now, Liberty being no more than that Power : A Precarious and Borrow'd Power, can constitute but a Precarious, Borrow'd, and Dependent Liberty ; and therefore so imperfect and so precarious a Being cannot but be dependent. But how is he free ? What profound Mystery is here ! His Liberty, of which I cannot doubt, shews his Perfection ; and his Dependance argues the Nothingness from which he was drawn.

SECT. LXX.

*The SEAL and STAMP of the DEITY in His Works.*

**W**E have seen the Prints of the DEITY, or to speak more properly the Seal and Stamp of God Himself in all that's call'd the Works of Nature. When a Man will not enter into Philosophical Subtilties, he observes, with the first Cast of the Eye, a Hand, that was the first Mover, in all the Parts of the Universe, and set all the Wheels of the Great Machine agoing. The Heavens, the Earth, the Stars, Plants, Animals, our Bodies, our Minds. Every thing shews and proclaims an Order, an exact Measure, an Art, a Wisdom, a Mind Superior to us, which is, as it were, the Soul of the whole World, and which leads and directs every thing to his Ends, with a gentle and insensible, tho' omnipotent Force. We have seen, as it were, the Architecture and Frame of the Universe; the just Proportion of all its Parts; and the true Cast of

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the Eye has sufficed us to find and discover even in an Ant, more than in the Sun, a Wisdom and Power that delights to exert it self in the Polishing and Adorning its Vilest Works. This is obvious, without any speculative Discussion, to the most Ignorant of Men : But what a World of other Wonders should we discover, should we penetrate into the Secrets of Physicks, and dissect the inward Parts of Animals, which are framed according to the most perfect Mechanics.

## SECT. LXXI.

OBJECTION of the EPICUREANS, who ascribe every thing to CHANCE, *consider'd*

**I** Hear certain Philosophers who answer me, that all this Discourse on the Art, that shines in the Universe, is but a continued Sophism. 'All Nature, will they say, is for Man's Use, 'tis true: But you have no Reason to infer from thence, that it was made, with Art, and on purpose, for the Use of Man. A

' Man must be ingenious in de-  
 ' vining himself, who looks for, and  
 ' thinks to find, what never existed.  
 ' 'Tis true, *will they add,* that Man's  
 ' Industry makes us of an infinite  
 ' Number of Things that Nature af-  
 ' fords, and are convenient for him:  
 ' But Nature did not make those  
 ' Things on purpose for his Convent-  
 ' eniency. As for Instance, some Coun-  
 ' try-Fellows climb up daily, by cer-  
 ' tain craggy and pointed Rocks, to  
 ' the Top of a Mountain; but  
 ' yet it does not follow that those  
 ' Points of Rocks were cut with  
 ' Art, like a Stair-Case, for the Con-  
 ' veniency of Men. In like manner,  
 ' when a Man happens to be in the  
 ' Fields, during a stormy Rain, and  
 ' fortunately meets with a Cave, he  
 ' uses it, as he would do a House,  
 ' for Shelter: But, however, it can-  
 ' not be affirm'd that this Cave was  
 ' made on purpose to serve Men for a  
 ' House. It is the same with the  
 ' whole World: It was form'd by  
 ' Chance, and without Design: But  
 ' Men finding it as it is, had the Art  
 ' to turn and improve it to their own  
 ' Uses. Thus the Art you admire

‘ both in the Work and its Artificer, is only in Men, who know how to make use of every thing that surrounds them.’ This is, certainly, the strongest Objection those Philosophers can raise; and I hope they’ll have no Reason to complain, that I have weaken’d it: But it will immediately appear how weak it is in it self, when closely examin’d. The bare Repetition of what I said before will be sufficient to demonstrate it.

*Answer to the Objection of the Epicureans, who ascribe all to CHANCE.*

**W**HAT would one say of a Man who should set up for a subtil Philosopher, or (to use the Modern Expression) a FREE THINKER, and who entering a House should maintain it was made by Chance, and that Art had not, in the least, contributed to render it commodious to Men, because there are Caves somewhat like that House, which yet were



were never dug by the Art of Man. One shou'd shew to such a Reasoner all the Parts of the House, and tell him, for Instance: *Do you see this great Court-Gate? It is larger than any Door, that Coaches may enter it. The Court has sufficient Space for Coaches to turn in it. This Stair-Case is made up of Low Steps, that one may ascend it with Ease; and turns according to the Apartments and Stories it is to serve. The Windows open'd at certain Distances, light the whole Building. They are glazed, lest the Wind should enter with the Light; but they may be open'd at Pleasure, in order to breath a sweet Air when the Weather is fair. The Roof is contriv'd to defend the whole House from the Injuries of the Air. The Timber-Work is laid slanting and pointed at the Top, that the Rain and Snow may easily slide down on Both Sides. The Tiles bear one upon another, that they may cover the Timber-Work. The divers Floors serve to make different Stories, in order to multiply Lodgings within a small Space. The Chimneys are contrived to light Fire in Winter, without setting the House on Fire, and to let out the Smoke, lest it should offend those that warm themselves. The Apartments are distri-*

but in such a manner, that they be dis-  
 engaged from one another; that a nume-  
 rous Family may lodge in the House, and  
 the one not oblig'd to pass through ano-  
 ther's Room; and that the Master's  
 Apartment be the Principal. There are  
 Kitchens, Offices, Stables, and Coach-  
 Houses. The Rooms are furnish'd with  
 Beds to lie in, Chairs to sit on, and Ta-  
 bles to write and eat on. Sure, should  
 one urge to that Philosopher, This  
 Work must have been directed by some  
 skilful Architect: For every Thing in it  
 is agreeable, pleasant, proportion'd, and  
 commodious; and besides, he must needs  
 have had excellent Artists under him.  
 ' Not at all.....would such a Philosopher  
 answer; ' You are ingenious in de-  
 ' ceiving your self. 'Tis true this  
 ' House is pleasant, agreeable, pro-  
 ' portion'd, and commodious: But  
 ' yet it made it self with all its Pro-  
 ' portions. Chance put together all  
 ' the Stones in this excellent Order;  
 ' it rais'd the Walls; jointed and laid  
 ' the Timber-Work; cut open the  
 ' Casements; and placed the Stair-  
 ' Case. Don't believe any Humane  
 ' Hand had any thing to do with it.  
 ' Men only made the best of this  
 ' Piece

Piece of Work, when they found  
 it ready made. They fancy it  
 was made for them, because they  
 observethings in it which they know  
 how to improve to their own Con-  
 veniency : But all they ascribe to the  
 Design and Contrivance of an ima-  
 ginary Architect, is but the Effect  
 of their preposterous Imaginations.  
 This so regular, and so well con-  
 triv'd House, was made just in the  
 same manner as a Cave; and Men  
 finding it ready made to their  
 Hands, make use of it, as they  
 would in a Storm, of a Cave  
 they should find under a Rock, in a  
 Desert.

What Thoughts could a Man en-  
 tertain of such a fantastick Philoso-  
 pher, if he should persist seriously to  
 assert, That such a House displays no  
 Art? When we read the fabulous Sto-  
 ry of *Amphion*, who by a miraculous  
 Effect of Harmony, caused the  
 Stones to rise, and place themselves,  
 with Order and Symmetry, one on  
 the Top of another, in order to form  
 the Walls of *Thebes*, we laugh and  
 sport with that Poetical Fiction : But  
 yet this very Fiction is not so incredi-

ble, as that which the *Free-thinking* Philosopher we contend with, would dare to maintain. We might, at least, imagine, that Harmony, which consists in a Local Motion of certain Bodies, might (by some of those secret Virtues, which we admire in Nature, without being acquainted with them) shake and move the Stones into a certain Order and in a Sort of Cadence, which might occasion some Regularity in the Building. I own this Explanation both shocks, and clashes with Reason: But yet it is less extravagant than what I have suppos'd a Philosopher should say. What, indeed, can be more absurd, than to imagine Stones that hew themselves, that go out of the Quarry, that get one on the Top of another, without leaving any empty Space; that carry with them Mortar to cement one another; that place themselves in different Ranks for the Contrivance of Apartments; and who admit on the Top of all the Timber-Roof, with the Tiles, in order to cover the whole Work? The very Children, that can't yet speak plain, would laugh, if they were seriously

riously told, such a ridiculous Story.

SECT. LXXIII.

COMPARISON *of the* WORLD, *with a* REGULAR HOUSE. *A Continuation of the Answer to the Objection of the Epicureans.*

**B**UT why should it appear less ridiculous to hear one say, that the World made it self, as well as that fabulous House? The Question is not to compare the World with a Cave without Form, which is suppos'd to be made by Chance: But to compare it with a House, in which the most perfect Architecture should be conspicuous. For the Structure and Frame of the least Living Creature is infinitely more artful and admirable, than the finest House that ever was built.

Suppose a Traveller entering *Saida*, the Country where the ancient *Thebes*, with a Hundred Gates, stood formerly, and which is now a Desert, should find there Columns, Pyramids,

Pyramids, Obelisks, and Inscriptions in unknown Characters. Would he presently say: Men never inhabited ~~this Place~~; No humane Hand had any Thing to do here; 'tis Chance that form'd these Columns, that plac'd them on their Pedestals, and crown'd them with their Capitals, with such just Proportions; 'Tis Chance that so firmly jointed the Pieces that make up these Pyramids; 'Tis Chance that cut the Obelisks in one single Stone, and engrav'd in them these Characters? Would he not, on the contrary, say, with all the Certainty the Mind of Man is capable of: These magnificent Ruins are the Remains of a Noble and Majestical Architecture, that flourish'd in ancient Egypt? This is what plain Reason suggests, at the first Cast of the Eye, or first Sight, and without Reasoning. It is the same with the bare Prospect of the Universe. A Man may by vain, long-winded, preposterous Reasonings confound his own Reason, and obscure the clearest Notions: But the single Cast of the Eye is decisive. Such a Work as the World is, never

ver makes it felt of its own accord. There is more Art and Proportion, in the Bones, Tendants, Veins, Arteries, Nerves, and Muscles, that compose Man's Body, than in all the Architecture of the ancient *Greeks* and *Egyptians*. The single Eye of the least of Living Creatures surpasses the Mechanicks of all the most skilful Artificers. If a Man should find a Watch in the Sands of *Africa*; he would never have the Assurance seriously to affirm, That Chance form'd it in that wild Place ; and yet some Men do not blush to say, That the Bodies of Animals, to the Artful Framing of which no Watch can ever be compar'd, are the Effects of the Caprices of Chance.

## SECT. LXXIV.

*Another OBJECTION of the EPICURE-  
ANS drawn from the ETERNAL  
MOTION of ATOMS.*

**I** Am not not ignorant of a Reasoning, which the *Epicureans* may frame into an Objection. 'The  
' Atoms, will they say, have an  
' eternal Motion; Their fortuitous  
' Concourse, must, in that Eternity,  
' have already produc'd infinite Com-  
' binations. Who says infinite, says  
' what comprehends all without  
' Exception. Amongst these infinite  
' Combinations of Atoms which  
' have already happen'd successive-  
' ly, all such as are possible must ne-  
' cessarily be found: For if there were  
' but one possible Combination, be-  
' yond those contain'd in that Infi-  
' nite, it would cease to be a true  
' Infinite: Because something might  
' be added to it; and whatever  
' may be increased, being limited  
' on the side it may receive an Ad-  
' dition, is not truly Infinite. Hence  
' it follows that the Combination  
' of



' of Atoms, which makes up the  
 ' present System of the World, is  
 ' one of the Combinations which  
 ' the Atoms have had successively:  
 ' Which being laid as a Principle, is  
 ' it Matter of Wonder, that the  
 ' World is as 'tis now? It must  
 ' have taken this exact Form, some-  
 ' what sooner, or somewhat later:  
 ' For in some one of these infinite  
 ' Changes, it must, at last, have  
 ' receiv'd that Combination, that  
 ' makes it now appear so regular;  
 ' since it must have had, by Turns,  
 ' all Combinations that can be con-  
 ' ceiv'd. All Systems are compre-  
 ' hended in the Total of Eternity.  
 ' There's none but the Concourse  
 ' of Atoms forms, and embraces,  
 ' sooner or later. In that infinite  
 ' Variety of New Spectacles of Na-  
 ' ture, the present was form'd in its  
 ' Turn. We find our selves actu-  
 ' ally in this System. The Con-  
 ' course of Atoms that made will,  
 ' in Process of Time, unmake it, in  
 ' order to make others, *ad infinitum*,  
 ' of all possible Sorts. This System  
 ' could not fail having its Place,  
 ' since all others, without Excepti-  
 ' on,

‘ on, are to have theirs, each in its  
 ‘ Turn. ’Tis in Vain one looks for  
 ‘ a Chimerical Art in a Work  
 ‘ which Chance must have made  
 ‘ as it is:

‘ An Example will suffice to illu-  
 ‘ strate this. I suppose an infinite  
 ‘ Number of Combinations of the  
 ‘ Letters of the Alphabet, succes-  
 ‘ sively form’d by Chance. All pos-  
 ‘ sible Combinations are, undoubted-  
 ‘ ly, comprehended in that total,  
 ‘ which is truly Infinite. Now ’tis  
 ‘ certain, that *Homer’s Iliad* is but  
 ‘ a Combination of Letters: There-  
 ‘ fore *Homer’s Iliad* is comprehended  
 ‘ in that infinite Collection of  
 ‘ Combinations of the Characters of  
 ‘ the Alphabet. This being laid  
 ‘ down as a Principle, a Man who  
 ‘ will assign Art in the *Iliad*, will  
 ‘ argue wrong. He may extol the  
 ‘ Harmony of the Verses, the Just-  
 ‘ ness and Magnificence of the Ex-  
 ‘ pressions, the Simplicity and Live-  
 ‘ liness of Images, the due Propor-  
 ‘ tion of the Parts of the Poem,  
 ‘ its perfect Unity, and inimitable  
 ‘ Conduct. He may, object, That  
 ‘ Chance can never make any Thing,

So perfectly, and that the utmost  
Effort of humane Wit is hardly  
capable to finish so excellent a  
Piece of Work: Yet all in Vain;  
for all this specious Reasoning is  
visibly false. 'Tis certain, on the  
Contrary, that the fortuitous Con-  
course of Characters, putting them  
together by Turns, with an  
infinite Variety, the precise Com-  
bination, that composes the *Iliad*,  
must have happen'd in its Turn,  
somewhat sooner, or somewhat  
later. It has happen'd at last;  
and thus the *Iliad* is perfect, with-  
out the Help of any humane Art?  
This is the Objection fairly laid  
down, in its full Latitude: I desire  
the Reader's serious and continued  
Attention to the Answers I am go-  
ing to make to it.

SECT. LXXV. OF THE  
ANSWERS to the OBJECTION of the EPI-  
CUREANS, drawn from the ETERNAL  
MOTION of ATOMS.

**N**OTHING can be more absurd  
than to speak of successive  
Combinations

Combinations of Atoms; infinite in Number: For the Infinite can never be, either Successive, or Divisible. Give me for Instance any Number, you may pretend to be infinite: And it will still be in my Power to do Two Things, that shall demonstrate it not to be a true Infinite. In the first Place, I can take an Unit from it; and, in such a Case, it will become less than it was, and will certainly be finite; For whatever is less than the Infinite, has a Boundary or Limit on the side where one stops, and beyond which one might go. Now the Number, which is finite as soon as one takes from it one single Unit, could not be infinite before that Diminution: For an Unit is certainly finite; and a Finite join'd with another Finite, cannot make an Infinite. If a single Unit added to a finite Number, made an Infinite, it would follow from thence, that the Finite would be almost equal to the Infinite; than which nothing can be more absurd. In the second Place, I may add an Unit to that Number given, and consequently increase it. Now what may

may be encreas'd, is not infinite: For the Infinite can have no Bound; and what is capable of Augmentation, is bounded on the side a Man stops, when he might go further, and add some Units to it. 'Tis plain therefore, That no divisible Compound, can be the true Infinite.

This Foundation being laid, all the Romance of the *Epicurean* Philosophy disappears and vanishes out of Sight, in an Instant. There never can be any divisible Body, truly infinite in Extent, nor any Number, or any Succession that is a true infinite. From hence it follows, That there never can be an infinite successive Number of Combinations of Atoms. If this Chimerical Infinite were real, I own all possible and conceivable Combinations of Atoms would be found in it; and that consequently all Combinations that seem to require the utmost Industry would likewise be included in them. In such a Case, one might ascribe to mere Chance, the most marvellous Performances of Art: If one should see Palaces built according to the most perfect Rules of

O Architecture,

Architecture, curious Furniture, Watches, Clocks, and all sort of Machines the most compounded, in a Desert Island, he should not be free reasonably to conclude that there have been Men in that Island, who made all those exquisite Works. On the contrary he ought to say: Perhaps one of the Infinite Combinations of Atoms, which Chance has successively made, has form'd all these Compositions in this Desert Island, without the Help of any Man's Art: For such an Assertion is a natural Consequence of the Principles of the *Epicureans*. But the very Absurdity of the Consequence, serves to expose the Extravagance of the Principle they lay down. When Men, by the natural Rectitude of their common Sense, conclude that such sort of Works cannot result from Chance: They visibly suppose, tho' in a confused Manner, That Atoms are not eternal, and that in their fortuitous Concourse, they had not an Infinite Succession of Combinations: For if that Principle were admitted, it would no longer be possible ever to distinguish the

the Works of Art, from those that should result from those Combinations, as fortuitous as a Throw at Dice.

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## S E C T. LXXVI.

*The Epicureans confound the WORKS of ART with those of NATURE.*

**A**LL Men who naturally suppose a sensible Difference between the Works of Art, and those of Chance, do consequently, tho' but implicitly, suppose, that the Combinations of Atoms were not infinite; which Supposition is very just. This infinite Succession of Combinations of Atoms is, as I shew'd before, a more absurd Chimera; than all the Absurdities some Men would explain by that false Principle. No Number, either successive, or continual, can be infinite: From whence it follows, that the Number of Atoms cannot be infinite; that the Succession of their various Motions, and Combinations, cannot be infinite; that the World

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cannot be eternal; and that we must find out a precise and fix'd Beginning of these successive Combinations. We must recur to a First Individual, in the Generations of every Species. We must likewise find out the original and primitive Form of every Particle of Matter, that makes a Part of the Universe. And as the successive Changes of that Matter, must be limited in Number, we must not admit in those different Combinations, but such as Chance commonly produces: Unless we acknowledge a Superior Being, who, with the Perfection of Art made the wonderful Works which Chance could never have made.

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## SECT. LXXVII.

*The EPICUREANS take whatever they please for granted, without any Proof.*

THE Epicurean Philosophers are so weak in their System, that 'tis not in their Power to form it, or bring it to bear, unless one admits without Proofs, their  
most



most fabulous *Postulata* and Positions. In the first Place they suppose eternal Atoms; which is begging the Question: For, how can they make out that Atoms have ever existed, and exist by themselves? To exist by one's self, is the supreme Perfection: Now, what Authority have they to suppose, without Proofs, that Atoms have in themselves a perfect, eternal, and immutable, Being? Do they find this Perfection in the Idea they have of every Atom in particular? An Atom not being the same with, and being absolutely distinguish'd from another Atom, each of them must have in it self Eternity, and Independance with respect to any other Being. Once more, is it in the Idea these Philosophers have of each Atom, that they find this Perfection? But let us grant them all they suppose, in this Question, and even what they ought to be asham'd to suppose: *viz.* That Atoms are eternal, subsisting by themselves, independent from any other Being, and consequently entirely perfect.

## SECT. LXXVIII.

*The SUPPOSITIONS of the EPICUREANS  
are false and chimerical.*

**M**UST we suppose besides that Atoms have Motion of themselves? Shall we suppose it out of Gayety, to give an Air of Reality to a System more chimerical than the Tales of the Fairies? Let us consult the Idea we have of a Body: We conceive it perfectly well without supposing it to be in Motion, and represent it to us at Rest; nor is its Idea in this State less clear; nor does it lose its Parts, Figure, or Dimensions. 'Tis to no Purpose to suppose that all Bodies are perpetually in some Motion, either sensible or insensible; and that tho' some Parts of Matter have a Lesser Motion than others, yet the universal Mass of Matter has ever the same Motion in its Totality. To speak at this Rate is Building Castles in the Air, and imposing vain Imaginations on the Belief of others: For who has told these Philosophers that the Mass of Matter has ever the same

same Motion in its Totality? Who has made the Experiment of it? Have they the Assurance to bestow the Name of Philosophy upon a rash Fiction, which takes for granted what they never can make out? Is there no more to do than to suppose whatever one pleases, in order to elude the most simple, and most constant Truths? What Authority have they to suppose that all Bodies incessantly move, either sensibly or insensibly? When I see a Stone that appears motionless, how will they prove to me that there is no Atom in that Stone but what is actually in Motion? Will they ever impose upon me bare Suppositions, without any Semblance of Truth, for decisive Proofs?

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SECT. LXXIX.

*'Tis falsely suppos'd that MOTION is  
ESSENTIAL to BODIES.*

**H**OWEVER, let's go a Step further, and, out of excessive Complaisance, suppose that all the Bodies in Nature are actually in Motion.

tion. Does it follow from thence that Motion is essential to every Particle of Matter? Besides, if all Bodies have not an Equal Degree of Motion; if some move sensibly, and more swiftly than others; if the same Body may move sometimes quicker, and sometimes slower; if a Body that moves communicates its Motion to the neighbouring Body that was at Rest, or in such inferior Motion, that it was insensible: It must be confes'd that a Mode or Modification, which sometimes increases, and at other times decreases in Bodies, is not essential to them. What's essential to a Being, is ever the same in it. *Neither* the Motion that varies in Bodies, and which after having increas'd, slackens and decreases to such a Degree as to appear absolutely extinct and annihilated; nor the Motion that is lost, that is communicated, that passes from one Body to another as a Foreign Thing, can belong to the Essence of Bodies: And therefore I may conclude, that Bodies are perfect in their Essence, without ascribing to them any Motion. If they have no Motion in their Essence, they have it only

only by Accident; and if they have it only by Accident, we must trace up that Accident to its true Cause. Bodies must either bestow Motion on themselves, or receive it from some other Being. It is evident they do not bestow it on themselves, for no Being can give what it has not in it self: And we are sensible that a Body at Rest ever remains motionless, unless some neighbouring Body happens to shake it. 'Tis certain therefore that no Body moves by it self, and is only moved by some other Body that communicates its Motion to it. But how comes it to pass that a Body can move another? What's the Reason that a Ball which a Man causes to roll on a smooth Table (*Billiards, for the Purpose*) cannot touch another without moving it? Why was it not possible that Motion should not ever communicate it self from one Body to another? In such a Case a Ball in Motion would stop near another at their Meeting, and yet never shake it.

## SECT. LXXX.

*The RULES of MOTION which the  
EPICUREANS suppose, do not ren-  
der it essential to Bodies.*

**I** May be answer'd, that according to the Rules of Motion among Bodies, one ought to shake or move another. But where are those Laws of Motion written, and recorded? Who both made them, and render'd them so inviolable? They do not belong to the Essence of Bodies; for we can conceive Bodies at Rest; and we even conceive Bodies, that would not communicate their Motion to others, unless these Rules, with whose Original we are unacquainted, subjected them to it. Whence comes this, as it were, arbitrary Government of Motion, over all Bodies? Whence proceed Laws so ingenious, so just, so well adapted one to the other, and the least Alteration of, or Deviation from which would, on a sudden, overturn and destroy all the excellent Order we admire in the Universe? A Body being entirely distinct

distinct from another, is in its Nature absolutely independent from it, in all respects: Whence it follows that it should not receive any thing from it, or be susceptible of any of its Impressions. The Modifications of a Body imply no necessary Reason to modify in the same Manner another Body, whose Being is entirely independent from the Being of the First. 'Tis to no purpose to alledge, That the most Solid and most Heavy Bodies carry or force away those that are less Big, and less Solid; and that according to this Rule a Great Leaden Ball ought to move a Great Ball of Ivory. We don't speak of the Fact: We only inquire into the Cause of it. The Fact is certain; and therefore the Cause ought likewise to be certain and precise: Let us look for it without any manner of Prepossession, or Prejudice. What's the Reason, that a Great Body carries off a Little one? The Thing might as naturally happen quite otherwise; for it might as well happen that the most solid Body should never move any other Body; that is to say, Motion might be incommunicable. Nothing but Custom obliges

obliges us to suppose that Nature ought to act as it does.

## S E C T. LXXXI.

*To give a satisfactory Account of MOTION, we must recur to the FIRST MOVER.*

**M**OREOVER, it has been proved that Matter cannot be either infinite, or eternal: And therefore there must be suppos'd both, a First Atom, by which Motion must have begun at a precise Moment, and a first Concourse of Atoms, that must have form'd the first Combination. Now, I ask what Mover gave Motion to that first Atom, and first set the great Machine of the Universe agoing? It is not possible to elude this Home Question by an endless Circle: For this Question lying within a finite Circumference, must have an End at last; and so we must find the First Atom in Motion, and the first Moment of that first Motion, together with the First Mover, whose Hand made that first Impression.

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SECT. LXXXII.

*No LAW of MOTION has its FOUNDATION in the ESSENCE of the BODY ; and most of those LAWS are ARBITRARY. †*

**A**MONG the Laws of Motion we must look upon all those as arbitrary, which we cannot account for by the very Essence of Bodies. We have already made out, that no Motion is essential to any Body : Wherefore all those Laws, which are suppos'd to be eternal, and immutable, are on the contrary, arbitrary † accidental, and made without cogent Necessity : For there is none of them that can be accounted for by the Essence of Bodies.

† NB. By Arbitrary the Author means, Made at Pleasure

If there were any Law of Motion essential to Bodies, it would undoubtedly be that by which Bodies of less Bulk, and less solid, are moved by such as have more Bulk and Solidity : And yet we have seen, that that very Law is not to be accounted for by the Essence of Bodies. There's another which might also seem very natural :

That,

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That, I mean, by which Bodies ever move rather in a direct, than a crooked Line, unless their Motion be otherwise determin'd by the Meeting of other Bodies. But even this Rule has no Foundation in the Essence of Matter. Motion is so very accidental, and superadded to the Nature of Bodies, that we do not find in this Nature of Bodies any primitive or immutable Law, by which they ought to move at all, much less to move according to certain Rules. In the same manner as Bodies might have existed, and yet have never either been in Motion, or communicated Motion one to another: So they might never have moved but in a circular Line; and this Motion might have been as natural to them as the Motion in a direct Line. Now, who is it that pitch'd upon either of these Two Laws equally possible? What is not determin'd by the Essence of Bodies, can have been determin'd by no other but him who gave Bodies the Motion, they had not in their own Essence. Besides, this Motion in a direct Line might have been

been upwards or downwards, from Right to Left, or from Left to Right, or in a Diagonal Line. Now, who is that determin'd which Way the strait Line should go?

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SECT. LXXXIII.

*The EPICUREANS can draw no CONSEQUENCE from all their SUPPOSITIONS, altho' the same should be granted them.*

**L**ET us still attend the *Epicureans* even in their most fabulous Suppositions; and carry on the Fiction to the last Degree of Complaisance. Let us admit Motion in the Essence of Bodies, and suppose, as they do, that Motion in a direct Line is also essential to all Atoms. Let us bestow upon Atoms both a Will, and an Understanding, as Poets did on Rocks and Rivers. And let us allow them likewise to chuse which way they will begin their strait Line. Now, what Advantage will these Philosophers draw from

## THE EXISTENCE

from all I have granted them, contrary to all Evidence? In the first Place, all Atoms must have been in Motion from all Eternity; *Secondly*, They must all have had an equal Motion; *Thirdly*, They must all have moved in a direct Line; *Fourthly*, They must all have moved by an immutable and essential Law.

I am still willing to gratify our Adversaries, so far as to suppose that those Atoms are of different Figures, for I will allow them to take for granted what they should be oblig'd to prove, and for which they have not so much as the Shadow of a Proof. One can never grant too much to Men who never can draw any Consequence from what is granted them: For the more Absurdities are allow'd them, the sooner they are caught by their own Principles.

## S E C T. LXXXIV.

ATOMS cannot make any COMPOUND  
by the Motion the EPICUREANS as-  
sign them.

**T**HESSE Atoms of so many odd  
Figures, some round, some  
crooked, others triangular, &c. are  
by their Essence oblig'd always to  
move in a strait Line, without ever  
deviating or bending to the Right,  
or to the Left: Wherefore they ne-  
ver can hook one another, or make  
together any Compound. Put, if  
you please, the sharpest Hooks near  
other Hooks of the like Make: Yet  
if every one of them never moves  
otherwise than in a Line perfectly  
strait, they will eternally move one  
near another, in Parallel Lines, with-  
out being able to join and hook one  
another. The Two strait Lines  
which are suppos'd to be parallel,  
tho' immediate Neighbours, will ne-  
ver cross one another, tho' carried on  
*ad Infinitum*: Wherefore in all Eterni-  
ty, no Hooking, and consequently no  
P Compound

Compound can result from that Motion of Atoms in a direct Line.

SECT. LXXXV.

*The CLINAMEN, Declination, or BENDING of ATOMS, is a Chimerical Notion, that throws the EPICUREANS into a gross Contradiction.*

**T**HE Epicureans not being able to shut their Eyes against this glaring Difficulty, that strikes at the very Foundation of their whole System, have, for a last Shift, invented what *Lucretius* calls *Clinamen*: By which is meant a Motion somewhat declining or bending from the strait Line, and which gives Atoms the Occasion to meet and encounter. Thus they turn and wind them, at Pleasure, according as they fancy best for their Purpose. But upon what Authority do they suppose this Declination of Atoms, which comes so pat to bear up their System? If Motion in a strait Line be essential to Bodies, nothing can bend, nor consequently join them, in all Eternity; the *Clinamen*

*men* destroys the very Essence of Matter, and those Philosophers contradict themselves without blushing. If, on the contrary, the Motion in a direct Line is not essential to all Bodies: why do they so confidently suppose eternal, necessary, and immutable Laws for the Motion of Atoms, without recurring to a First Mover? And why do they build a whole System of Philosophy, upon the precarious Foundation of a ridiculous Fiction? Without the *Clinamen* the strait Line can never produce any Thing, and the *Epicurean* System falls to the Ground. With the *Clinamen*, a fabulous poetical Invention, the direct Line is violated, and the System falls into Derision and Ridicule.

Both the strait Line, and the *Clinamen*, are airy Suppositions and mere Dreams: But these two Dreams destroy each other; and this is the Upshot of the uncurb'd Licentiousness some Men allow themselves of supposing as eternal Truths, whatever their Imagination suggests them to support a Fable; while they refuse to acknowledge the Artful and Power-

ful Hand that form'd and placed all  
the Parts of the Universe.

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## S E C T. LXXXVI.

*Strange* ABSURDITY of the EPICUREANS,  
*who endeavour to account for the Nature*  
*of the SOUL, by the DECLINATION of*  
ATOMS.

**T**O reach the highest Degree of amazing Extravagance, the *Epicureans* have had the Assurance to explain and account for what we call the Soul of Man, and his Free-Will, by the *Clinamen*, which is so unaccountable and unexplicable itself. Thus they are reduc'd to affirm, that 'tis in this Motion, wherein Atoms are in a Kind of *Equilibrium* between a Strait Line, and a Line somewhat circular, that Humane Will consists.

Strange Philosophy! If Atoms move only in a Strait Line, they are inanimate, and incapable of any Degree of Knowledge, Understanding, or Will: But if the very same Atoms somewhat deviate from the Strait Line, they become, on a sudden, animate



nimate, thinking, and rational. They are themselves Intelligent Souls, that know themselves, reflect, deliberate, and are free in their Acts and Determinations. Was there ever a more Absurd Metamorphosis! What Opinion would Men have of Religion, if in order to assert it, one should lay down Principles and Positions so trifling and ridiculous as theirs, who dare to attack it in earnest?

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## S E C T. LXXXVII.

*The EPICUREANS cast a Mist before their own Eyes, by endeavouring to explain the Liberty of Man by the DECLINATION of ATOMS.*

**B**UT let us consider to what Degree those Philosophers impose upon their own Understandings. What can they find in the *Clinamen*, that, with any Colour, can account for the Liberty of Man? This Liberty is not imaginary: For 'tis not in our Power to doubt of our Free-Will, any more than it is to doubt of what we

## The EXISTENCE

are intimately conscious and certain. I am conscious I am free to continue sitting, when I rise in order to walk. I am sensible of it with so entire Certainty, that 'tis not in my Power ever to doubt of it in earnest; and I should be inconsistent with my self, if I dar'd to say the contrary. Can the Proof of our Religion be more evident and convincing? We cannot doubt of the EXISTENCE of GOD, unless we doubt of our own Liberty: From whence I infer, that no Man can seriously doubt of the Being of the DEITY; since no Man can entertain a serious Doubt about his own Liberty. If, on the contrary, it be frankly acknowledg'd, that Men are really Free, nothing is more easy than to demonstrate, that the Liberty of Man's Will cannot consist of any Combination of Atoms, if one supposes, that there was no First Mover, who gave Matter arbitrary Laws for its Motion. Motion must be essential to Bodies, and all the Laws of Motion must also be as necessary as the Essences of Natures are. Therefore, according to this System, all the Motions of Bodies must be perform'd  
by

by constant, necessary, and immutable Laws; the Motion in a Strait Line must be essential to all Atoms, that are not made to deviate from it by the Encounter of other Atoms; the Strait Line must likewise be essential either upwards, or downwards, either from Right to Left, or Left to Right, or some other Diagonal Way, fix'd, precise, and immutable. Besides, 'tis evident that no Atom can make another Atom deviate: For that other Atom carries also in its Essence the same invincible and eternal Determination to follow the Strait Line the same Way. From hence it follows that all the Atoms placed at first on Different Lines, must pursue *ad infinitum*, those parallel Lines, without ever coming nearer one another; and that those who are in the same Line must follow one another *ad infinitum*, without ever coming up together, but keeping still the same Distance from one another. The *Clinamen*, as we have already shewn, is manifestly impossible: But contrary to evident Truth, supposing it to be possible, in such a Case it must be affirm'd that the *Cli-*

*namen* is no less necessary, immutable, and essential to Atoms, than the Strait Line. Now will any Body say, that an essential and immutable Law of the local Motion of Atoms, explains and accounts for the true Liberty of Man? Is it not manifest, that the *Clinamen* can no more account for it, than the Strait Line it self? The *Clinamen*, supposing it to be true, would be as necessary as the Perpendicular Line, by which a Stone falls from the Top of a Tower into the Street. Is that Stone free in its Fall? *However*, the Will of Man according to the Principle of the *Clinamen*, has no more Freedom than that Stone. Is it possible for Man to be so extravagant as to dare to contradict his own Conscience about his Free-Will, lest he should be forc'd to acknowledge his GOD and MAKER? To affirm, on the one Hand, that the Liberty of Man is imaginary, we must silence the Voice, and stifle the Sense of all Nature; give our selves the Lye in the grossest Manner; deny what we are most intimately conscious and certain of; and in short, be reduc'd to believe, that we have no  
*Eligibility,*

*Eligibility*, or Choice of Two Courses, or Things proposed, about which we fairly deliberate upon any Occasion. Nothing does Religion more Honour, than to see Men necessitated to fall into such gross and monstrous Extravagance, as soon as they call in Question the Truths she teaches! On the other Hand, if we own that Man is truly free, we acknowledge in him a Principle, that never can be seriously accounted for, either by the Combinations of Atoms, or the Laws of local Motion, which must be supposed to be all equally necessary, and essential to Matter, if one denies a First Mover. We must therefore go out of the whole Compass of Matter, and search far from combined Atoms, some incorporeal Principle to account for free Will, if we admit it fairly. Whatever is Matter and an Atom, moves only by necessary, immutable, and invincible Laws: Wherefore Liberty cannot be found either in Bodies, or in any Local Motion; and so we must look for it in some Incorporeal Being. Now, Whose Hand tied and subjected to the Organs of this corporeal Machine, that incorporeal Being, which

Times, by the Wicked to exercise and improve the Good. Nay, it happens oftentimes that what appears a Defect to our narrow Judgment, in a Place separate from the Work, is an Ornament with respect to the general Design; which we are not able to consider, with Views sufficiently extended and simple to know the Perfection of the Whole. Does not daily Experience shew, that we rashly censure certain Parts of Men's Works, for want of being thoroughly acquainted with the whole Extent of their Designs and Schemes? This happens, in particular, every Day, with respect to the Works of Painters and Architects. If writing Characters were of an immense Bigness, each Character, at close View, would take up a Man's whole Sight; so that it would be not possible for him to see above one at once; and therefore he would not be able to read, that is, put different Letters together, and discover the Sense of all those Characters put together. It is the same with the great Strokes of Providence in the Conduct of the whole World, during a long

long Succession of Ages. There's nothing but the Whole that's intelligible; and the whole is too vast and immense to be seen at Close View. Every Event is like a particular Character that is too large for our narrow Organs, and which signifies Nothing of it self, and separate from the rest. When, at the Consummation of Ages, we shall see in God, that is in the true Point, and Center of Perspective, the Total of Humane Events, from the first to the last Day of the Universe, together with their Proportions, with regard to the Designs of God, we shall cry out: LORD, Thou alone are Just and Wise! We cannot rightly Judge of the Works of Men, but by examining the Whole. Every Part ought not to have every Perfection; but only such as becomes it according to the Order and Proportion of the different Parts that compose the Whole. In a humane Body, for Instance, all the Members must not be Eyes, for there must be Hands, Feet, &c. So in the Universe, there must be a Sun for the Day; but there must be also a Moon for the Night.

Nec

*Aug. L. & Tit. Ab. Nec tibi occurrit perfecta Universitas, nisi ubi majora sic preſto ſunt, ut minora non deſint.* This is the Judgment we ought to make of every Part, with reſpect to the Whole. Any other View is narrow and deceitful. But what are the weak and puny Deſigns of Men, if compar'd to that of the Creation and Government of the Universe? As much as the Heavens are above the Earth, as much, ſays GOD in the Holy Writ, are my Ways and my Thoughts above yours. Let therefore Man admire what he Underſtands, and be ſilent about what he does not comprehend. But after all, even the real Defects of this Work, are only Imperfections which GOD was pleaſed to leave in it, to put us in Mind that He drew and made it from NOTHING. There's not any Thing in the Universe but what does, and ought equally to bear theſe Two Oppoſite Characters; on the one ſide, the Seal or Stamp of the Artificer upon his Work; and on the other, the Mark of its Original Nothing, into which it may relapſe and dwindle every Moment. 'Tis an incomprehenſible



sensible Mixture of Low and Great;  
 of Frailty in the Matter, and of Art  
 in the Maker? The Hand of God  
 is conspicuous in every Thing, even  
 in a Worm that crawls on Earth.  
 Nothingness, on the other Hand ap-  
 pears every where, even in the most  
 vast and most Sublime Genius. What-  
 ever is not GOD, can have but a stinted  
 Perfection, and what has but a stinted  
 Perfection, always remains imperfect,  
 on the side where the Boundary is  
 sensible, and denotes that it might  
 be improv'd. If the Creature  
 wanted nothing, it would be the  
 CREATOR Himself: For it would  
 have the Fulness of Perfection, which  
 is the DEITY it self. Since it cannot  
 be Infinite, it must be limited in  
 Perfection; that is, it must be im-  
 perfect on one side or other. It may  
 have more or less imperfection; but  
 still it must be imperfect. We must  
 ever be able to point out the very  
 Place where it is Defective; and to  
 say, upon a Critical Examination:  
 This is what it might have had,  
 what it has not.

*Aug. de  
 Ordine.*

## SECT. LXXXIX.

*The DEFECTS of the UNIVERSE, compar'd  
with those of a PICTURE.*

**D**O we conclude that a Piece of Painting is made by Chance, when we see in it either Shades, or even some careless Touches? The Painter, we say, might have better finish'd those Carnations, those Draperies, those Prospects. 'Tis true, this Picture is not perfect according to the nicest Rules of Art. But how extravagant would it be to say: This Picture is not absolutely perfect; therefore 'tis only a Collection of Colours form'd by Chance, nor did the Hand of any Painter meddle with it? Now, what a Man would blush to say of an indifferent, and almost artless Picture, he is not ashamed to affirm of the Universe, in which a Crowd of incomprehensible Wonders, with excellent Order and Proportion, are conspicuous. Let a Man study the World as much as he pleases; let him descend into the minutest Details; dissect the vilest of Animals; narrowly consider the  
least

least Grain of Corn, sown in the Ground, and the manner in which it germinates and multiplies; attentively observe with what Precautions a Rose-bud blows and opens in the Sun, and closes again at Night: And he will find in all these more Design, Conduct, and Industry, than in all the Works of Art. Nay, what is call'd the Art of Men, is but a faint Imitation of the great Art call'd the Laws of Nature, and which the Impious did not blush to call *Blind Chance*. Is it therefore a Wonder, that Poets animated the whole Universe; bestow'd Wings upon the Winds, and Arrows on the Sun; and described great Rivers impetuously running to precipitate themselves into the Sea, and Trees shooting up to Heaven, to repel the Rays of the Sun, by their thick Shades? These Images and Figures have also been receiv'd in the Language of the Vulgar: So natural it is for Men to be sensible of the wonderful Art that fills all Nature. Poetry did only ascribe to inanimate Creatures, the Art and Design of the CREATOR, who does every  
Q Thing

Thing in them. From the figurative Language of the Poets, those Notions pass'd into the Theology of the Heathens, whose Divines were the Poets. They supposed an Art, a Power, or a Wisdom, which they call'd *Numen*, in Creatures the most destitute of Understanding. With them great Rivers were Gods, and Springs, Naiads. Woods, and Mountains had their particular Deities; Flowers had their *Flora*; and Fruits *Pomona*. After all, the more a Man contemplates Nature, the more he discovers in it an inexhaustible Stock of Wisdom, which is, as it were the SOUL of the Universe.

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 S E C T. XC.

*We must necessarily conclude that there is a FIRST BEING that created the UNIVERSE.*

**W**HAT must we infer from thence? The Consequence flows of it self. If so much Wisdom and Penetration, says *Minnacius Felix*, are required to observe the wonderful Order and Design of the Structure of the World: How much more were necessary to form it? If Men so much admire Philosophers, because

because they discover a small Part of the Wisdom that made all Things: They must be stark blind, not to admire that WISDOM it self.

S E C T. XCI.

REASONS *why Men do not acknowledge God in the UNIVERSE, wherein he shews himself to them, as in a faithful Glass.*

**T**HIS is the great Object of the Universe, wherein God, as it were in a Glass, shews himself to Mankind. But some, (I mean, the Philosophers) were bewilder'd in their own Thoughts. Every Thing with them turn'd into Vanity. By their subtle Reasonings, some of them over-shot and lost a Truth, which a Man finds naturally and simply in Himself, without the Help of Philosophy.

Others, intoxicated by their Passions, live in a perpetual Avocation of Thought. To perceive God in his Works a Man must, at least, consider them with Attention: But Passions cast such a Mist before the Eyes, not only of wild Savages, but even of Nations that seem to be most civiliz'd and polite, that they do not

so much as see the Light that lights them. In this Respect, the *Egyptians*, *Grecians*, and *Romans*, were no less blind, or less brutish, than the rudest and most ignorant *Americans*. Like these, they lay, as it were, buried within sensible Things, without going up higher; and they cultivated their Wit, only to tickle themselves with softer Sensations, without observing from what Spring they proceeded. In this manner, the Generality of Men pass away their Lives upon Earth. Say nothing to them: And they will think on nothing, except what flatters either their brutish Passions, or Vanity. Their Souls grow so heavy and unwieldy, that they cannot raise their Thoughts to any incorporeal Object. Whatever is not palpable, and cannot be seen, tasted, heard, felt, or told, appears chimerical to them. This Weakness of the Soul turning into Unbelief appears Strength † of Mind to them; and their Vanity glories in opposing what naturally strikes and affects the rest of Mankind: Just as if a Monster prided in not being form'd according to the common Rules of Nature;

† Our Illustrious Author undoubtedly alludes to the Appellation of Esprits Forts which in French signifies Free Thinker.

ture ; or as if one born blind boasted of his Unbelief with respect to Light and Colours, which other Men perceive and discern.

## S E C T. XCII.

## A P R A Y E R to G O D.

**O** MY GOD ! If so many Men do not discover Thee in this great Spectacle, Thou givest them of all Nature : 'Tis not because Thou art far from any of us. Every one of us feels Thee, as it were with his Hand : But the Senses, and the Passions they raise, take up all the Attention of our Minds. Thus, O LORD, Thy Light shines in Darkness : But Darkness is so thick and gloomy, that it does not admit the Beams of Thy Light. Thou appear'st every where ; and every where unattentive Mortals neglect to perceive Thee. All Nature speaks of Thee, and resounds with Thy Holy Name. But she speaks to Deaf Men, whose Deafness proceeds from the Noise and Clutter they make to stun themselves. Thou art near, and within them : But they are fugitive, and wandering as it were, out of themselves. They

let me

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would

## THE EXISTENCE

would find Thee, O Sweet Light, O Eternal Beauty, ever Old, and ever Young, O Fountain of chaste Delights, O Pure and Happy Life of all who live truly, should they look for Thee within themselves. But the Impious lose Thee, only by losing themselves. Alas! Thy very Gifts, which should shew them the Hand from whence they flow, amuse them to such a Degree, as to hinder them from perceiving it. They live by Thee; and yet they live without thinking on Thee; or rather, they live by the Fountain of Life, for want of quenching their Drought in that Vivifying Stream. For what greater Death can there be, than not to know Thee, O Lord? They fall asleep in Thy Soft and Paternal Bosom; and full of the deceitful Dreams by which they are toss'd in their Sleep, they are insensible of the Powerful Hand that supports them. If Thou wert a Barren, Impotent, and Inanimate Body, like a Flower that fades away; a River that runs; a House that decays and falls to Ruin; a Picture, that is but a Collection of Colours, to strike the Imagination; or an useless Metal



Metal that glisters ; They would perceive Thee, and fondly ascribe to Thee the Power of giving them some Pleasure, altho' in Reality, Pleasure cannot proceed from Inanimate Beings, which are themselves void and incapable of it, but only from Thee alone, the True Spring of all Joy. If therefore Thou wert but a Lumpish, Frail, and Inanimate Being ; a Mass without any Virtue, or Power ; a Shadow of a Being : Thy Vain, Fantastick Nature would busy their Vanity ; and be a proper Object to entertain their mean and brutish Thoughts. But because Thou art too intimately within them, and they never at Home, Thou art to them an UNKNOWN GOD : For while they rove and wander Abroad, the intimate Part of themselves is most remote from their Sight. The Order and Beauty Thou scatter'st over the Face of Thy Creatures, are like a glaring Light that hides Thee from, and dazzles their sore Eyes. Thus the very Light that should light them, strikes them blind ; and the Rays of the Sun themselves hinder them to see it ! In fine, because Thou

*Aug. Int-  
rior Inti-  
mo nostra.*

art too Elevated, and too Pure a Truth, to affect gross Senses, Men who are become like Beasts, cannot conceive Thee: Tho' Man has daily convincing Instances of Wisdom and Virtue, without the Testimony of any of his Senses; for those Virtues have neither Sound, Colour, Odour, Taste, Figure, nor any sensible Quality. Why then, O my God, do Men call Thy Existence, Wisdom, and Power, more in Question, than they do those other Things most real and manifest, the Truth of which they suppose as certain, in all the serious Affairs of Life, and which nevertheless, as well as Thou, escape our feeble Senses? O Misery! O dismal Night, that surrounds the Children of *Adam*! O monstrous Stupidity! O Confusion of the whole Man! Man has Eyes only to see Shadows, and Truth appears a Phantom to him. What's nothing, is all; and what's all, is nothing, to Him. What do I behold in all Nature? God. Gone every where, and still God alone. When I think, O *LORD*, that all Being is in Thee, Thou exhaustest and swallow'st up, O Abyss of Truth, all my Thoughts.

I know not what becomes of me. Whatever is not Thou disappears; and scarce so much of my self remains, wherewithal to find my self again. Who sees Thee not, never saw any Thing; and who is not sensible of Thee, never was sensible of any Thing. He is as if he were not. His whole Life is but a Dream. Arise, O Lord, arise. Let Thy Enemies melt like Wax, and vanish like Smoke, before Thy Face. How unhappy is the impious Soul, who far from Thee is without GOD, without Hope, without eternal Comfort! How happy he who searches, sighs, and thirsts after Thee. But fully happy he on whom are reflected the Beams of Thy Countenance; whose Tears Thy Hand has wiped off; and whose Desires Thy Love has already compleated! When will that Time be, O LORD? O Fair Day, without either Cloud or End, of which Thy Self shalt be the Sun, and wherein Thou shalt run through my Soul, like a Torrent of Delight! Upon this pleasing Hope, my Bones shiver, and cry out: *Who is like Thee, O LORD? My Heart melts, and my Flesh faints, O GOD of my Soul, and my Eternal Wealth.* THE

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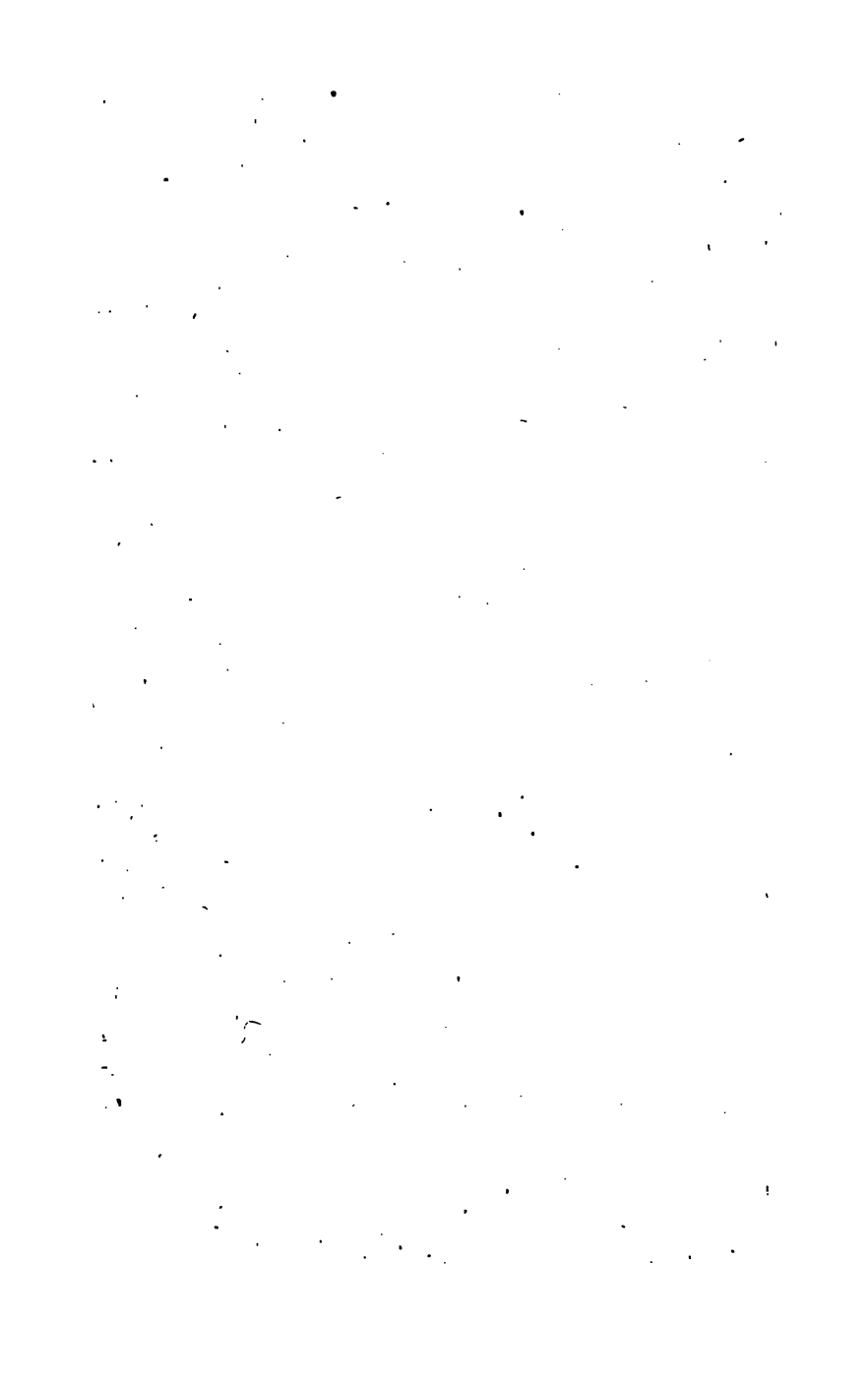
F I N I S.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for organizing and storing data, including digital databases and physical filing systems. It also mentions the need for regular audits and reviews to ensure the integrity of the information.

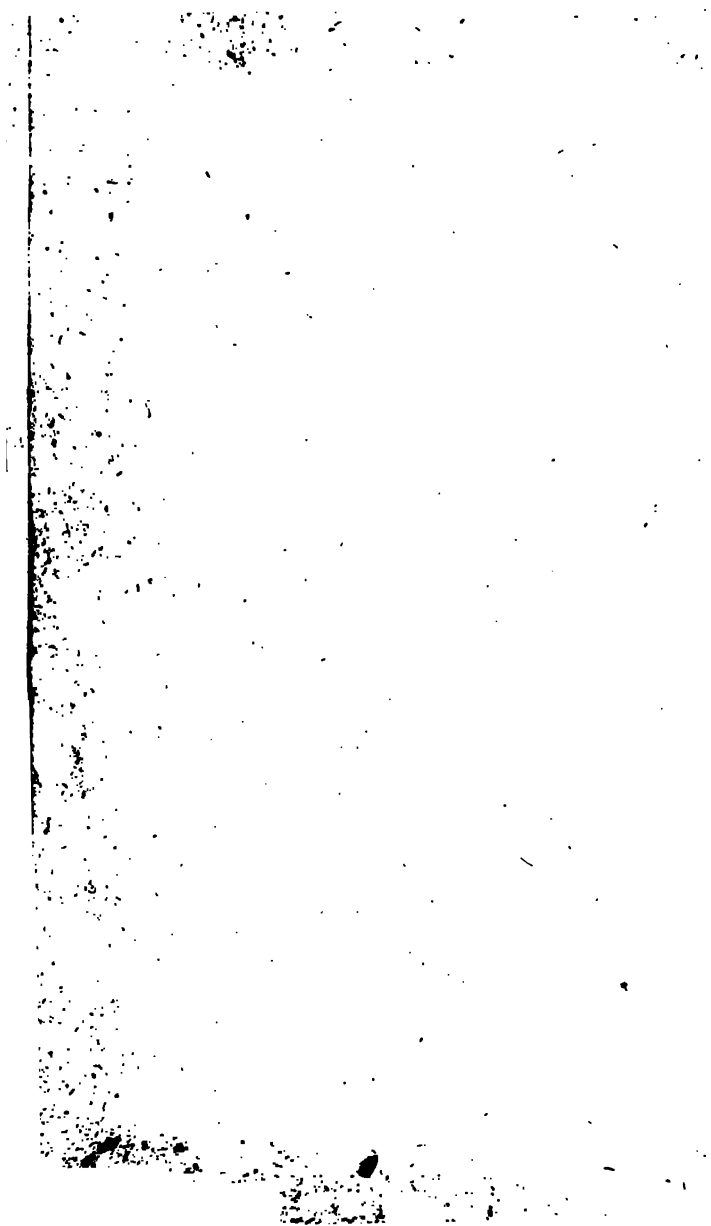
2. The second section focuses on the role of communication in achieving organizational goals. It highlights the importance of clear and concise communication channels, both internally and externally. The text suggests implementing regular meetings and reports to keep all stakeholders informed and engaged. It also discusses the benefits of open communication, such as improved collaboration and faster problem-solving.

3. The third part of the document addresses the challenges of managing a large and diverse team. It acknowledges that different team members may have varying skills, experiences, and backgrounds, which can lead to communication barriers and conflicts. The text provides strategies for overcoming these challenges, such as providing training and support, fostering a positive team culture, and encouraging open dialogue. It also mentions the importance of setting clear expectations and roles for each team member.

4. The final section discusses the importance of continuous learning and improvement. It emphasizes that organizations should not be afraid to embrace change and innovation. The text suggests implementing a system of regular feedback and evaluation to identify areas for improvement. It also mentions the benefits of staying up-to-date with industry trends and best practices, such as attending conferences and workshops. The text concludes by stating that a commitment to continuous learning is essential for long-term success.









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